STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

UNIVERSITY OF MICHIGAN
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MAIN READING ROOM

HEARINGS

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS UNITED STATES SENATE

AND

SENATE MEMBERS OF THE JOINT COMMITTEE ON ATOMIC ENERGY

EIGHTY-FIFTH CONGRESS

FIRST SESSION

ON

EXECUTIVE I

THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

MAY 10, 14, 15, AND 20, 1957

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CONTENTS

Statements of— Page

Baker, Mrs. Adelaide, Committee for World Development and World Disarmament 218

Boss, Dr. Charles F., Jr., executive secretary for United Nations and Intergovernmental Affairs, Board of World Peace of the Methodist Church 214

Campbell, Wallace J., director, Cooperative League of the United States 222

Dulles, Hon. John Foster, Secretary of State 3

Kirk, Richard L., Atomic Energy Commission 93

McVitty, Mrs. Marion, United Nations observer and first vice president, United World Federalists, Inc 216

Murray, Thomas E., Commissioner, United States Atomic Energy Commission 173

Price, Charles C., professor of chemistry and chairman, department of chemistry, University of Pennsylvania; Friends Committee on National Legislation 202

Strauss, Lewis L., Chairman, United States Atomic Energy Commission 83

Toll, John S., professor of physics and chairman, department of physics, University of Maryland; Federation of American Scientists 196

Wadsworth, Hon. James, Deputy Representative of the United States to the United Nations 127

Walser, Mrs. Gladys D., Women's International League for Peace and Freedom 205

Weitzer, Bernard, national legislative director, Jewish War Veterans of the USA 210

Statements submitted for the record by—

American Association of University Women 229

Birkhead, Kenneth M., executive director, American Veterans Committee 203

Cole, Hon. Sterling, Member of Congress 167

Daniel, W. C. "Dan," national commander, the American Legion 242

Dresser, Robert B., Providence, R. I 243

Durham, Hon. Carl T., Member of Congress 226

Eichelberger, Clark M., American Association for the United Nations 194

Erb, Mrs. Ray L., National Society, Daughters of the American Revolution 255

Gross, Ernest A., chairman, department of international affairs, National Council of the Churches of Christ 241

Higgins, Very Rev. Msgr. George G., executive secretary, the Catholic Association for International Peace 247

Kilday, Hon. Paul J., Member of Congress 227

Kemp, Robert, Troy, N. Y 231

National Farmers Union 237

National Society of New England Women 252

Reuther, Victor G., International Union, United Automobile, Aircraft and Agricultural Implement Workers of America 246

Thomas, Norman, chairman, Post War World Council 243

Thompson, Paul D., Sr., Severn, Md 248

Waters, Mrs. Agnes, Washington, D. C 256

Wedel, Mrs. Theodore O., chairman, United Church Women, National Council of the Churches of Christ 228

Williams, David, legislative representative, Americans for Democratic Action 212

Material submitted for the record: Page
Chart showing membership of Board of Governors 12
Message from the President to the Senate transmitting statute 18
Letter of transmittal from the Secretary of State to the President 19
Copy of the Statute of the International Atomic Energy Agency 21
Summary of the statute 33
Report on the Conference on the Statute 41
Letter to the President of the Conference on the Statute from the Venezuelan delegation 47
Report on the status of bilateral agreements 50
Letter from the Department of State regarding record of discussions which resulted in phrase, "such terms" 51
Letter recontractual basis of United Nations action to insure misuse of atomic materials 51
Replies from Department of State to questions submitted by Senator Hickenlooper 52
Comparison of safeguards provisions contained in bilateral agreements and in statute 72
Letter from Atomic Energy Commission to Senator Hickenlooper regarding equivalent amounts of U–235 at concentrations of 20 percent and 2 percent 111
Letter from Atomic Energy Commission regarding degree of enrichment of fissionable materals for reactors 113
Letter from Department of State regarding status of consideration of the statute by Canada, France, and the United Kingdom 162
Letter to Senator Pastore from the Atomic Energy Commission regard- authority under the Atomic Energy Act of 1954 for making gifts of special nuclear material without direct congressional action 166
Appendix: Charts showing power reactor cycle 257, 258
Index I

STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

FRIDAY, MAY 10, 1957

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, D. C.

The committee met, pursuant to call, at 10:30 a. m., in room P–63, the Capitol, Senator Theodore Francis Green (chairman) presiding.

Present: From the Senate Foreign Relations Committee: Senators Green (chairman), Sparkman, Mansfield, Long, Smith (New Jersey), Hickenlooper, Knowland, and Aiken. From the Joint Committee on Atomic Energy: Senators Pastore, Hickenlooper, Knowland, Bricker, and Dworshak. (Senators Hickenlooper and Knowland are on both committees.)

Also present: James J. Wadsworth, deputy United States representative to the United Nations; Lewis L. Strauss, Chairman, Atomic Energy Commission.

The CHAIRMAN. Mr. Secretary and members of the Joint Committee, we are meeting here today to consider the statute of the International Atomic Energy Agency, which was signed at New York City by the United States and 79 other nations between October 26, 1956, and January 24, 1957.

The Senate members of the Joint Committee on Atomic Energy have been invited to sit with the Committee on Foreign Relations during these hearings because of the close relationship between the treaty before us and the work of the Joint Committee.

At this point, I am inserting in the record a copy of the letter which I wrote to Senator Clinton Anderson, vice chairman of the Joint Committee on Atomic Energy, together with his reply, concerning the invitation extended by the Committee on Foreign Relations to participate in these proceedings:

(The documents referred to are as follows:)

APRIL 8, 1957.

Hon. CLINTON P. ANDERSON,
Vice Chairman, Joint Committee on Atomic Energy,
Senate Office Building, Washington, D. C.

DEAR SENATOR ANDERSON: I refer to your letter dated March 22, 1957, suggesting that the statute establishing an International Atomic Energy Agency (Ex. I, 85th Cong., 1st sess.) be referred to the Senate members of the Joint Committee on Atomic Energy after the Committee on Foreign Relations has completed action on the treaty, or earlier.

This matter was carefully explored by the Committee on Foreign Relations during a meeting on Wednesday, April 3, 1957. At that meeting, committee members felt that in view of the delicate and complex issues related to the peaceful uses of atomic energy which the treaty presents, it was important to obtain the collaboration of those Members of the Senate who have been most closely concerned with atomic-energy problems.

The committee therefore authorized me to invite the Senate members of the Joint Committee on Atomic Energy to sit with the Committee on Foreign Relations during its hearings on the treaty, to participate in all discussions, and to examine witnesses. It would not be possible, however, for Senators from the Joint Committee to vote on the treaty itself or any amendments thereto which might be proposed. The Committee on Foreign Relations would also be glad to receive testimony from House members of the Joint Committee on Atomic Energy should they wish to testify.

I believe that this procedure will be the most effective and expeditious means of dealing with the treaty, and that it will insure an adequate examination and analysis of its essential aspects.

I do not anticipate that it will be possible to hold hearings until after the Easter recess.

Sincerely yours,

THEODORE FRANCIS GREEN, *Chairman.*

ALBUQUERQUE, N. MEX., *April 19, 1957.*

Hon. THEODORE FRANCIS GREEN,
Chairman, Committee on Foreign Relations,
United States Senate, Washington, D. C.

DEAR SENATOR GREEN: Thank you very much for your letter of April 8. I am sure the Senate members of the Joint Committee on Atomic Energy will be very pleased to sit with the Committee on Foreign Relations during its discussions of the statute establishing an International Atomic Energy Agency.

We will be looking for information as to the meeting dates sometime after the Easter recess.

Sincerely yours,

CLINTON P. ANDERSON.

OBJECTIVES AND IMPORTANCE OF THE STATUTE

The CHAIRMAN. The statute now before us in the form of a treaty would establish an international agency through which the nations of the world, in a cooperative effort, could advance and develop the peaceful uses of atomic energy, thus hastening the day when its benefits will be enjoyed by all people.

In my opinion, the statute is one of the most significant instruments which the Senate has been called upon to approve in recent years. It might have the most far-reaching consequences, not only for our Nation, but for humanity in general.

In a great many respects it is unfortunate that the first effective use of the power in the atom should have been for military purposes. For by this time it should be clear to most of us that the great potential of the atom lies in its peacetime value for industry, for agriculture, for medicine, and for everyday living.

Yet we have allowed our thinking to be conditioned too deeply by the military aspects of this awesome force, a force which can bring untold blessings to mankind.

One of the objectives of this statute is to divert a portion of the energies of the world to the development of peaceful uses of atomic power, and at the same time to take that first elusive step toward cooperative control over the use of nuclear materials which is so important for man's future.

It is for us to determine whether the United States can safely join with other nations in an effort to realize this objective; and whether we can adhere to the statute without incurring risks and hazards which we should avoid in the national interest.

On the other hand, it is equally important to know what some of the consequences might be of our failure to ratify; in other words, whether with due recognition of the risks involved, the national interest would be served more by participation than by abstention.

These are some of the questions to which I am sure Secretary Dulles and the other administration witnesses who appear here may wish to address themselves.

Members of this committee will doubtless have many other questions they wish to raise with you, Mr. Secretary, after you have completed your formal statement.

We will now hear from Secretary of State Dulles.

STATEMENT OF HON. JOHN FOSTER DULLES, SECRETARY OF STATE

THE PRESIDENT'S "ATOMS FOR PEACE" PROPOSAL

Secretary DULLES. Mr. Chairman and members of the committee, 3½ years ago, on December 8, 1953, President Eisenhower made his plea for "Atoms for Peace."

Addressing the General Assembly of the United Nations the President proposed a "way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life." To this end, he proposed the creation of an international agency for pooling nuclear material and technology to advance the peaceful uses of atomic energy.

His proposal was a new attack on the problem of the atom. In 1946, when the United States had atomic monopoly, we made the first effort to bring the atom under control. The Baruch plan would have stopped the output of nuclear weapons by putting all nuclear energy under international control. It was designed to safeguard the peoples of the world against the holocaust of atomic war.

For 7 years the Soviet Union had blocked any progress along this line by its refusal to accept atomic inspection and control. No way had been found to break the impasse. In this depressed climate the President's proposal for an atomic agency for peaceful purposes came as an inspiring concept. It was acclaimed throughout the world.

In the period since the proposal was made, the need for such an agency has become even more manifest. Great progress has been made in using atomic energy for generating electric power. No longer is this an experiment. Atomic powerplants are a future certainty. Some are already being built. The demand for energy is growing by leaps and bounds. More and more, men's minds are turning to the use of the atom as a source of energy.

At the same time, people are becoming more aware of some of the dangers inherent in this progress. When power is produced by nuclear energy, I understand that the process in current practice produces weapons quality material which could find its way into war arsenals in the absence of atomic controls and inspection. And such production also creates waste products which could imperil health and safety. Today the need is even more imperative for protection against the inevitable byproducts of the atomic age.

NEGOTIATION OF THE STATUTE

The statute of the International Atomic Energy Agency is designed to fill this need. Its origin is the proposal of the President. In working out the statute, some 80 nations took part. They represent every stage of economic development, every shade of political attitude, and every variety of national culture. Despite the need to reconcile these varied interests, the statute has kept intact every element of the President's proposal without sacrifice of substance or principle.

The fact that so many countries should have unanimously approved the text of the statute at the conference in New York last fall is a tribute to the soundness of the concept. At first, the Soviet Union was negative to these proposals. But, in the face of the world's manifest desire, the Soviet Union has now shown readiness to participate in the Agency. It even tries to compete with us for leadership in this effort. And I might interject that the Soviet Union hastened to be the first nation to ratify the statute, though I am glad to say Guatemala was the first nation to deposit an instrument of ratification.

In conceiving and negotiating this treaty, the United States is faithful to its great tradition of resourcefully identifying its own self-interest with the interest and welfare of all mankind.

ADVANTAGES OFFERED TO UNITED STATES

I turn now to the more concrete aspects of the matter.

What advantage does this Agency offer to the United States and to other nations?

First, the Agency will accelerate the peaceful development of the atom. The history of atomic energy makes clear that many men from many nations have contributed to the stage we have now reached. A forum such as the Agency for the exchange of discovery and invention among all nations should result in a dramatic speeding up in this peaceful atomic development. Second, the Agency will provide an effective system of safeguards to insure the development of atomic energy with security.

We must realize that atomic-energy materials and know-how will spread, Agency or no Agency. A spread of nuclear technology and facilities is to our interest. But a rapid and unsupervised development of nuclear power around the world raises the specter of nuclear weapons ultimately becoming quite generally the byproducts of nuclear powerplants. An effective safeguard system must be established if this is to be prevented. These powerplants are going to be built. It is just a question of whether their spread around the world will or will not be surpervised in the common interest.

No one nation can, alone, indefinitely police the spread of nuclear powerplants. In our bilateral agreements we now provide for safeguards, including inspection by our own nationals, to assure against improper use of nuclear material. But this is a short-term solution. Sovereign nations would accept an international system of broad applicability. But they will not long be content to have their electric-power systems under continuous supervision by technicians merely serving another nation. So, if we want long-term and safe foreign

markets for our nuclear materials and technology, we need an international system of safeguards to assure that our exports do not breed military dangers.

The safeguard system contained in this treaty is the same as the American system of safeguards—the system now contained in our bilateral agreements. No compromise of any substance was made in regard to safeguards during the treaty negotiations. In fact, the system contained in the final treaty is more comprehensive than that contained in early drafts of the treaty. This treaty will give the American system of safeguards a world standing. With some reason, we can hope that the American system will become universally accepted. In any event, it will be madatory for all countries in projects receiving Agency support.

Thirdly, there is the problem of health and safety. We know that atomic energy involves risks and dangers if improperly handled. An international code to protect the health and safety of those increasing numbers of people who work with atomic energy or live in the environs of nuclear establishments can best be established and supervised by this Agency.

Fourth, the Agency will afford a way of pooling inadequate manpower resources which otherwise could be a limiting factor in the peaceful uses of the atom.

Technical personnel, I am told, is in short supply. A purely bilateral approach would be a severe drain on United States skilled manpower. The Agency can be an instrument both for using this present supply in the most effective way and of increasing the supply by coordinating training of new technicians and scientists.

Fifth, the Agency can help in moving toward control of nuclear weapons. We have tried for many years to reach agreement on this difficult subject. The sticking point has always been the issue of controls. In the Agency, for the first time in history, the overwhelming majority of the nations have agreed on a far-reaching system of controls and safeguards. We hope that it will demonstrate the feasibility of controls in a way that will have a constructive impact on negotiations for the regulation and reduction of armaments.

Sixth, the openness which this system will promote can be in preventing the spread of nuclear weapons, which, in turn, could seriously impede arms control. It is quite conceivable that nations might themselves develop atomic weapons merely because of suspicion, unjustified in fact, that neighbors were doing so. Under this treaty, development of the peaceful atom would take place in the open, subject to international scrutiny. Thus, nations will feel less impelled to develop nuclear weapons out of fear of the unknown.

Finally, international cooperation in a new field comparable in importance to the industrial revolution can have an effect which will spread far beyond itself. We are all aware of the difficulties and obstacles to reaching agreement with the Soviet Union on any matter. But this Agency provides a beginning of cooperation which could have a favorable impact on the climate of international relations. The splitting of the atom might conceivably lead to a unifying of the now divided world.

QUESTION OF UNITED STATES OBLIGATIONS

The obligations which the United States would undertake as a member of the International Atomic Energy Agency, under its statute, are neither numerous nor heavy.

1. The statute does not contemplate that the Agency shall become a giveaway organization. The countries who receive materials and other atomic needs from it are required to pay a price that will permit the Agency to reimburse the supplier. As for suppliers, the amount of anything they make available—materials, services, or equipment—is entirely up to them. The Agency has no power to call upon any member to become a supplier, but may only induce it to supply assistance by offering satisfactory terms.

2. The United States would be obligated to pay its share of the administrative expenses of the Agency. Other expenses are to be met out of other revenues of the Agency.

To give you an idea of what this might mean for the United States, the administrative expenses of the Agency for its first year of operation would not be expected to exceed $6 million. The maximum share of this that could be assessed to the United States would be one-third or $2 million.

3. Just as the Agency is barred from being a giveaway organization for handing out the members funds and resources, it cannot be a giveaway organization for atomic secrets. The Agency will not be a distributor of classified information, but only of information on peaceful uses of atomic energy which is in the open literature or is otherwise free of any restrictions on access imposed for reasons of security.

4. The fuel that the Agency will distribute will not be of a kind usable for nuclear weapons. I understand that extensive processing and refabrication would be needed to convert this fuel into weapons grade material or to extract its byproduct weapons grade material.

No prospective recipient of fuel from the Agency now possesses the necessary extensive facilities to affect this conversion or byproduct extraction. And if it were to acquire them, that could not as a practical matter be concealed from the Agency's notice.

I have already sought to indicate the great potential of this Agency—for economic development of large areas of the world; for cooperation with other nations, including the Soviet Union, in ways which will reduce international tension and promote the practice of peaceful and constructive collaboration; for encouraging peaceful use of the atom and averting the spread of nuclear military potential to additional countries; and for giving the nations experience with a system of international safeguards which could build confidence and further the prospects of safeguarded disarmament.

1954 CONGRESSIONAL ACTION

We have proceeded to take the initiative on the creation of the Agency with the blessings of the Congress. In 1954, although the President had not yet requested it, the Congress included among its extensive revisions of the Atomic Energy Act a provision specifically permitting the United States to enter into an agreement for coopera-

tion with an international agency once it came into existence with appropriate congressional approval.

Now 80 nations have in effect accepted our concept. This is a unique development in diplomatic history. Ratification of this statute will afford the United States the opportunity to continue to exercise leadership to help the world, in the President's words, "out of fear and into peace."

Mr. Chairman, that concludes my prepared statement. I would like to say that Ambassador Wadsworth is here, who with great ability conducted the negotiations which resulted in the final signature of an agreed treaty between 80 nations. There were extensive negotiations which involved many weeks of time, and he is the best witness to be able to testify before you and answer your questions with respect to the technical aspects of the treaty, the meaning of its language and the legislative history which forms the background of the treaty.

As regards the atomic aspects of the matter, Chairman Strauss is here, but he has been called I understand as a witness before you on Tuesday and I think would prefer to make his principal presentation at that time.

I would like to be excused from answering questions of a technical nature involving atomic matters because that is no field into which a layman should barge and I defer to an expert on these matters as I am sure the committee will wish to do.

As far as relates to the general foreign policy aspects of this matter, I shall be glad to submit to your questioning, asking as I say leave, after I finish, to put Ambassador Wadsworth on the witness stand to answer your more technical questions about the treaty, and then leaving, if it is agreeable to you, until Tuesday the presentation by Chairman Strauss.

Thank you, Mr. Chairman.

QUESTIONING PROCEDURE

The CHAIRMAN. Mr. Secretary, we will be very glad to ask questions under those conditions, understanding that you may prefer to defer them to someone else in certain cases.

Inasmuch as the committee sitting here today to consider this statute consists not only of the Senate Committee on Foreign Relations but the Senate members of the Joint Committee on Atomic Energy, it will be desirable for me to call on members in the order of their seniority in the Senate, not on the committees.

There are so many members present that I believe it would be helpful if each member would limit his questioning to not exceed 6 minutes for the first round of questions and I will ask the staff to inform me when each Senator's time has expired.

May I take the lead in asking some questions myself.

PROPOSED LOCATION OF AGENCY'S HEADQUARTERS

Where is it anticipated that this new Agency will establish its headquarters?

Secretary DULLES. In Vienna.

The CHAIRMAN. Why was that particular site selected?

Secretary DULLES. Because it was believed that Austria was on the one hand a neutral country which was an appropriate site for an in-

ternational agency just as Switzerland, another neutral country, has become the seat of so many international agencies, and also because it has the buildings, facilities, and a good deal of literature and other qualifications.

There was considerable discussion, as I recall, at the conference as between Vienna and Geneva and Ambassador Wadsworth can give you more detail as to the discussion and background that actually took place in New York, but we believed that Vienna was an entirely suitable and appropriate place for the seat of the organization.

WOULD AGENCY BE A MIDDLEMAN BETWEEN GOVERNMENTS?

The CHAIRMAN. Isn't the proposed agency in effect a middleman between governments?

As a practical matter, if an underdeveloped country wants to purchase a reactor, isn't it likely to go to the British or the French or ourselves? Why should they deal with an international agency?

Secretary DULLES. We hope, Mr. Chairman, that the countries which are now in the position to supply fissionable material of which the United States ranks No. 1, the Soviet Union No. 2, and the United Kingdom No. 3, we think that they will all prefer to use this agency because it will provide a system of international safeguards which is in the interests of everyone.

Now it is quite likely that if there is no such organization with a standard system of controls, then you may get into a situation where nations will shop around and buy their material from the nation which imposes the least controls, and you would have a competition as between the three countries I mentioned, perhaps soon other ones, as to which one would impose the least controls, and in the end the whole control system would break down. We believe that because it is so much in the general interest that there should be a control system that if an international standard is available, formulated, ready to operate, that all of the supplying nations will prefer to act through it.

That is surmise. We can't guarantee that, but the interest which the supplying nations have taken in this adherence to it and what they have said in the course of negotiations gives us good reason to hope that there will be acceptance of the single standard which would be applied by the Agency, and that none of them would make an effort to break that standard down by itself offering material on less stringent control terms.

The CHAIRMAN. Then, as I understand it, you think it will adjust itself equitably?

Secretary DULLES. Yes, sir. I think it is probable, as I say, that the supplying nations will prefer to have a common international standard of control applied rather than each try to devise its own in a competitive way, which would probably lead to the breakdown of all systems of control, and that no one believes is in its interest.

IRON CURTAIN COUNTRIES' ACQUISITION OF FISSIONABLE MATERIALS

The CHAIRMAN. One more question: To what extent will it be possible for Iron Curtain countries to take fissionable materials in the amounts made available to the Agency?

Secretary DULLES. That would be a matter on which the supplying countries would have a good deal to say in making and in fixing agency policies in the Board of Governors. Of course, the Soviet Union is in a position today to be a supplier of this material to the other Iron Curtain countries, and there is no way in the world to stop them getting such material.

We would rather have them get the material under the safeguards that this agency provides than have them get the material without safeguards.

QUESTIONING PROCEDURE

The CHAIRMAN. I thank you. I will now call on the other Senators, in the order of their seniority in the Senate.

Senator KNOWLAND. Mr. Chairman, just as a matter of procedure, I would like to ask, is it the intention of the Chair to go down the list of the Senators in order of seniority but also alternating between the parties, or to go down the Democratic side before you get to the most senior Republican?

The CHAIRMAN. I have a list which I had made up according to senority on the Democratic side and the Republican side, without regard to committee.

Senator KNOWLAND. I have no objection as regards the committee, but I do have a slight objection if you are going down the complete list of seniority on the Democratic side before you come to the most senior Republican.

The CHAIRMAN. No. I will call first on the Democratic side, the majority party, and next on the senior member on the Republican side.

Senator KNOWLAND. All right, as long as we understand each other.

LEGISLATION GOVERNING CONTRIBUTIONS OR TRANSFERS TO PROPOSED AGENCY

The CHAIRMAN. Mr. Aiken?

Senator AIKEN. Mr. Secretary, I assume that the United States contemplates making contributions to this agency if it is approved by the Senate, and I would like to inquire: Is there full authority to do so under existing law?

Secretary DULLES. There is authority to make materials available.

Senator AIKEN. What is the authority of the United States to allocate materials to foreign governments under existing legislation, and to what extent would this authority be modified or affected by the statute which would create this international agency?

Secretary DULLES. Under the Atomic Energy Act of 1954, as amended, it is provided through sections 124 and 123 that special nuclear materials may be transferred to this agency under terms and conditions of agreements for cooperation entered into in accordance with section 123.

This agreement must be submitted to the Joint Committee on Atomic Energy and a period of 30 days must have elapsed before the transfer is undertaken.

As in the case of bilateral agreements with individual nations, the terms and conditions of the agreement will be formulated with a

view to providing a practical mechanism for achieving the desired result.

As you are aware, I am sure, Senator, we are providing or arranging to provide quite a few nations with this material under bilateral agreements, and it would be the same authority I understand that is now being availed of for bilateral agreements.

Senator AIKEN. Yes, but are there any prohibitions in our law against supplying fissionable materials to any countries which might conceivably be beneficiaries of the agency which it is proposed to establish?

Would it be necessary to change our laws to permit contributions under those conditions?

Secretary DULLES. On a bilateral basis it is provided there should be a finding that the security of the United States would not be adversely affected.

I understand that that limitation would apply in the case of the international agency, and I want to say this, Senator. The reason that I have given, suggested in answer to the questions of the chairman, the possibilities of getting inspection and supervision of an international character within the Iron Curtain countries will afford advantages so considerable from the standpoint of the security of the United States that I do not think that there would be any difficulty in making it work.

Senator AIKEN. These countries could become members of this organization, as I understand it. They would make applications for assistaunce under the general authority of the Agency. I was wondering then, would that be in conflict with our own laws?

Secretary DULLES. No, sir.

Senator AIKEN. If a determination was made that some of these countries might possibly be hostile to the United States, their operations might affect our security?

Secretary DULLES. I understand that is not the case.

Perhaps I have lost, I am sorry to say, the last question, sir.

Senator AIKEN. You understand that is not the case?

Secretary DULLES. Yes.

Senator AIKEN. I realize there are a lot of questions to be asked on this matter, and the hearings will extend over the next few days, so I have just one more question.

STATUTE'S RELATIONSHIP TO THE ATOMIC ENERGY ACT OF 1954

Section 121 of the Atomic Energy Act of 1954 provides as follows:

Any provision of this Act or any action of the Commission to the extent and during a time that it conflicts with the provisions of any international arrangement made after the date of enactment of this Act shall be deemed to be of no force or effect.

Does this in effect say that any provision of this treaty in conflict with the Atomic Energy Act shall prevail over the act? If so, what if any amendments to the Atomic Energy Act does this treaty accomplish? Does this treaty in effect amend the Atomic Energy Act of 1954?

Secretary DULLES. I don't think, Senator, that there is any conflict between the two. If there were conflict, I think it is correct that the present act gives priority to the treaty, but I am not aware myself

of any provision of the treaty, which in fact involves a conflict with the act.

Senator AIKEN. Whatever conflict exists, or which may develop, the Atomic Energy Act would be superseded by this treaty?

Secretary DULLES. That is my understanding, that that would be the legal effect, although in fact, as I say, I am not aware of any factual, actual conflict between the Agency charter and the act.

DETERMINATION OF BENEFICIARY NATIONS

Senator AIKEN. Just another rather elementary question.

Who determines what nations shall be the beneficiaries of this proposed setup? Is it the Board of Governors?

Secretary DULLES. Yes.

Senator AIKEN. And could an applicant be denied assistance for any other reason than that he might be expected to make war material out of it?

Secretary DULLES. No. I think they are all entitled to share as long as they accept the controls and supervision that the Agency would impose, and meet the criteria of article XI.

Senator AIKEN. Do you believe that there is enough fissionable material available, and which would be contributed by the producer nations, to make the benefits available for all members, or would there have to be selection there?

Secretary DULLES. The Chairman of the Atomic Energy Commission, who is of course more knowledgeable in that respect than I am, tells me that he believes there will be enough of the material available to meet the immediately foreseeable needs. It could very well develop he thinks that the demand would increase to a point where some rationing would be required. If so, that would be administered by the Board, presumably on a basis of relative needs.

Senator AIKEN. Thank you, Mr. Secretary.

The CHAIRMAN. Mr. Sparkman?

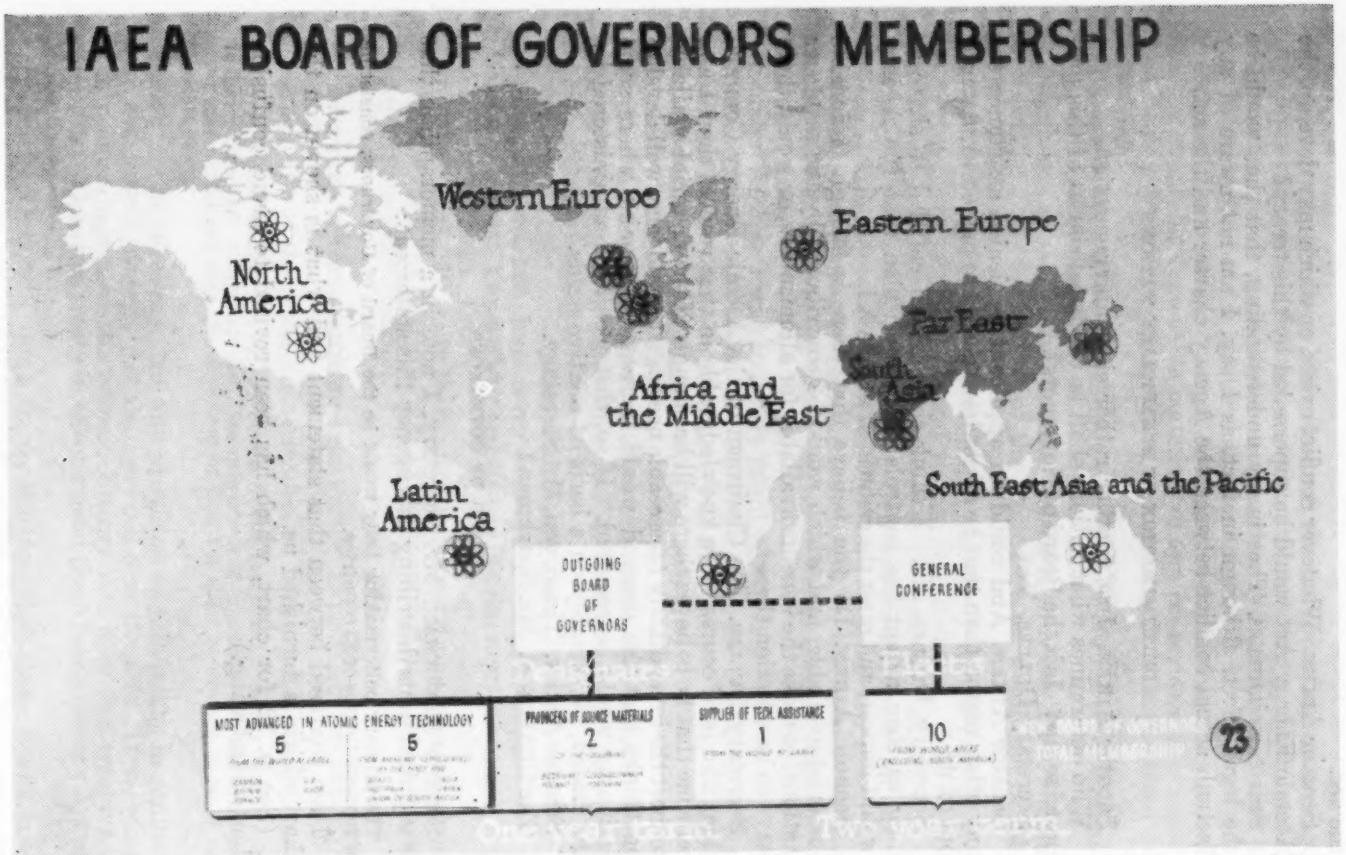
BOARD OF GOVERNORS

Senator SPARKMAN. Mr. Secretary, I note in a memorandum that is supplied to us describing this agency this statement:

> The primary policymaking body would be the Board of Governors, consisting of representatives of 23 countries.

I am confused between that statement and what is shown on the chart which is furnished us.

(See p. 12 for chart, which has been revised to avoid confusion due to numbering.)



Information in this chart which goes beyond the specific language of the IAEA Statute is for illustrative purposes only and does not indicate a United States Government position.

Senator SPARKMAN. The chart shows Board of Governors membership, and it has the following: North America, 1; Western Europe, 2; Eastern Europe, 3; Latin America, 4; Africa and Middle East, 5.

Is that membership from each area or is that just geographical interests?

Southeast Asia and the Pacific, 7, and south Asia 6, and the Far East, 8.

Secretary DULLES. No, sir; I am not familiar with that chart, but those figures are not designed to indicate the number that will be there.

This question of the selection of the Board is somewhat complicated.

As I say, Ambassador Wadsworth is probably the best interpreter of the provisions of the charter, but my understanding is this: That you first have a group of five member states which represent those which are most advanced in technology or the supply of raw materials.

Those, it is understood, will probably be the United States, the United Kingdom, the Soviet Union, France, and Canada.

Then you have one member each of the world's eight geographical areas not represented above, and I think it is thought probable that those would be Brazil, India, Australia, Japan, and South Africa representing respectively Latin America, South Asia, Australia-Asia, the Far East and Africa, plus two members from among the four producers of source materials, Belgium, Czechoslovakia, Poland and Portugal, so balanced that you will have one of Czechoslovakia or Poland and one of Belgium or Portugal.

Then there will be in addition one supplier of technical assistance which we think probably will be a Western European country and then 1 member from each of 8 geographical areas except North America, which is already adequately represented by the United States and Canada, and then there will be three so-called floating seats elected by the conference. We anticipate that they may be 2 Latin American countries and 1 African country, but there is some guesswork involved in that.

The formula is extremely——

Senator SPARKMAN. I can see that I was confused by the numbers on the chart. Apparently they are just put there as a matter of convenience for the different areas of the world and do not refer to representation on the Board of Governors.

Secretary DULLES That is correct.

Senator SPARKMAN. Even from the listing that you have given, isn't it a fact that the Board of Governors will be dominated by representatives from the so-called less-developed areas of the world, and if that is true, is there a danger that the Agency may evolve into a device to impose a constant drain on the energy resources of the members with atomic capabilities?

QUESTION OF ADEQUACY OF FISSIONABLE MATERIALS

I noticed that in your reply to Senator Aiken you said there certainly was a sufficient amount for the immediately foreseeable future. I believe you said, but what about beyond that point?

Secretary DULLES. Of course the Agency has no power to require any member to contribute anything.

Senator SPARKMAN. Contribution is voluntary with the member countries?

Secretary DULLES. Entirely voluntary as to the amount and terms, price or anything of that sort.

Senator SPARKMAN. Mr. Secretary, will participation in the Agency tend to encourage competition among suppliers of fissionable materials in respect to peaceful uses of atomic energy, and do you believe it will tend to increase the efforts of all nations in the peaceful use of such material?

Secretary DULLES. I think it will, yes.

RISK OF CONVERSION FROM PEACEFUL TO MILITARY USES

Senator SPARKMAN. Just what certainty is there that a particular peacetime project might not have a future military use as well as a peaceful one? I notice you emphasized that in your statement, and I am thinking particularly of such things as radar. We certainly had a fine peaceful use, but we found it would be used in war as well.

Secretary DULLES. I am sure that Chairman Strauss can answer that question much better than I, but my untutored impression of it is that since the material furnished will not itself be of weapons quality, and since the making, converting of it into weapons quality or the extraction of weapons quality material out of it as a by-product would be an elaborate and difficult and expensive operation, that that could not occur without the knowledge of the agency and that the violation would be detected.

Of course it is always possible for a nation to break its treaty obligations and to produce weapons material, but it can do that whether or not—if there be no agency they would be even freer to do it than at the present time.

In other words the risk is not increased but diminished by the Agency.

CONSEQUENCES OF FAILURE TO RATIFY TREATY

Senator SPARKMAN. What would be the consequences if the United States Senate should fail to give its approval to this treaty? Would the agency still be set up just the same, and in that event, what would be the position of the United States with reference to its prestige and standing?

I wonder if you would express yourself on that?

Secretary DULLES. It would, I think, in fact I am certain it would have a very disastrous effect upon the prestige and influence of the United States in the world.

This is essentially a made-in-America project. It is one which has caught the imagination of the peoples of the world, and for us to be the nation that rejected it would have very fateful consequences indeed.

Whether or not the project would survive that I doubt. The only nation that could make it survive would be the Soviet Union which is the only other nation which has sufficient quantities of this material to make it a viable project.

The Soviet Union, recognizing that this was a project which greatly enhanced the prestige of the United States, sought for about 2 years to block it and thwart it. They finally saw it was going ahead anyway, and then apparently adopting the old political slogan "If you can't lick 'em, join 'em," they have now become very active in trying to join up and to try to give a certain leadership of its own to the movement.

I think, however, if we did not ratify the treaty, the whole effort would collapse and the responsibility for that collapse would of course be clearly pinned on to us, and it would involve a blow to our prestige and influence in the world of almost uncalculable proportions.

Senator SPARKMAN. Thank you, Mr. Secretary.

Thank you, Mr. Chairman. My time is up.

The CHAIRMAN. Mr. Smith of New Jersey.

NEGOTIATION OF TREATY

Senator SMITH. Mr. Dulles, could you give us briefly for the record, a statement of the participation of the United States in the development of the text of this statute?

Did we practically dominate the determination of the language of this statute?

Secretary DULLES. I think that would be an overstatement, Senator, because there were a good many weeks of negotiation with some 79 other countries. Certainly the United States exerted the most profound influence upon the character of this statute, because it was our idea when we originally made the drafts, and our task was primarily one of explaining the purposes, satisfying other countries that it was not designed to be an instrument for United States domination of the world as some of them were fearful of, but broadly speaking, the concepts and indeed the language are of United States origin.

PROBABLE COMPOSITION OF STOCKPILE

Senator SMITH. Am I correct, Mr. Secretary, in my understanding that we are contributing 5,000 kilograms to Russia's 70 and Great Britain's 50?

Wouldn't that be about what you might call the stockpile which the Agency will have available?

Secretary DULLES. I would rather that Admiral Strauss give his estimate as to the probable composition of the stockpile. The Soviet contribution was announced prior, as I recall, to the time when we announced a much larger sum which we would hold available, and we do not yet I think have the Soviet reaction to that. I would think it likely they would contribute more.

Chairman Strauss confirms my own feelings that the Soviet figure which you mentioned, and which was put forward over a year before the statute was signed, is probably not their final figure. It was a figure produced in relation to our earlier figure, which was itself very much smaller. Unless there is going to be a larger Soviet contribution, I think we would want to reconsider our own contribution.

Senator SMITH. The point of my question was——

Secretary DULLES. I use the word "contribution," but I want to make it perfectly clear this does not mean a free contribution. It would probably be a sale. At least it would not be just given away.

Senator SMITH. You mean making available for the use of the Agency?

Secretary DULLES. Yes, sir.

Senator SMITH. The point of my question was that with the great predominance of this availability from the United States, it seems to be very questionable whether the Agency could ever be set up, unless we did join this program, is that correct?

Secretary DULLES. I think it is highly unlikely that the Agency would proceed if we did not take part in it.

Senator SMITH. You don't think Russia would jump in and try to contribute what we might otherwise have, and steal the ball from us?

Secretary DULLES. It might be tempted to try to do so but I do not think it could succeed in doing so. It would probably put an excessive strain upon what we believe to be its atomic resources. Also it would have difficulty in drawing into association with it so many nations which are ideologically opposed to it.

DEFINITION OF "MILITARY PURPOSES"

Senator SMITH. Mr. Secretary, I do not find in the Statute any definition of what we mean by "military purposes." Is there a general understanding among those who discuss these things as to what we mean by military purposes, so that it is not left undefined?

Secretary DULLES. I think that that is generally understood. It is one of these phrases I think, which there is more danger trying to define than there is in leaving undefined. It is like the word "aggression" which so often people have urged should be defined. The trouble is if you once attempt a comprehensive definition of aggression, an aggressor is going to find some device which does not fit into the definition. Then you have no way of stopping him.

So in this field, when you are dealing with a broad concept, we believe it is better to leave it to the Board of Governors to make the definition in any particular case.

Senator SMITH. Mr. Chairman, I understand my time is up so I will have to desist.

The CHAIRMAN. We are glad you have exhausted your time in the sense that you have made very good use of it.

Mr. Long?

INSPECTION

Senator LONG. I believe you have already gone into this, Mr. Secretary. It occurs to me, Mr. Secretary, that the inspection which would be carried out would be under the Board of Governors as I understand it?

Secretary DULLES. Yes, sir.

Senator LONG. Of course that is an insurance that the Board of Governors would be as interested in inspection as this Nation itself would be.

In other words, our interest in the inspection would be very great here, particularly as to what was being done behind the Iron Curtain.

How about the Board of Governors? Is there any indication that they would be as zealous in seeking inspection as this country is?

Secretary DULLES. We believe that all of the members of the Board of Governors, and that includes the Soviet Union, will be really interested in effective inspection.

That is so much in the interest of everybody, both from a weapons standpoint, and from a health standpoint, that we do not really think that there will be any member of the Board who will want to have defective administration of the inspection machinery.

Senator LONG. I take it that you are very optimistic that the Soviet Union and its satellites will cooperate in this inspection?

Secretary DULLES. It is my view that the Soviet Union does not want to see the availability of atomic weapons spread throughout the world. That is an inference which we draw from what we learn in our disarmament talks with them. But even more than that, it is logical that they should want to keep a relative monopoly, with one or two others, in this field of weapons rather than to see it spread.

In view of recent developments, for example in Hungary and in Poland, I would think the last thing in the world the Soviet Union would want to have would be to have atomic weapons in the hands of those countries.

If Hungary had had some atomic weapons, then its armed forces, which were hostile to the Soviet forces, might have been in a position to say "Well, if you do not get out of Hungary, we will drop an atomic missile on the Kremlin."

I don't think that the Soviet wants that kind of a situation to develop. I think that there is a community of interest here, for different reasons, which in fact makes everybody anxious to have an effective inspection system in this agency.

Senator LONG. As far as the Soviet Union inspecting what is going on anywhere behind the Iron Curtain is concerned, of course there is no doubt that they can inspect anything going on there now, is there?

You are not suggesting that they could not in any event inspect what is going on in those countries at any time?

Secretary DULLES. No, they could do that, but I am saying that they have an interest in an effective inspection system.

Senator LONG. Yes.

Secretary DULLES. And I do not think that it should be inferred that they are not interested in an effective inspection system because they want to see atomic weapons produced in satellite countries.

I do not think their calculations would lead them to want this inspection system to be ineffective. They certainly would want to have an effective system in the countries which are close neighbors of the Soviet Union itself.

Senator LONG. As a practical matter, assuming the Soviet Union is participating in this program, is there anything that the Soviet Union needs from this program that would require them to open themselves to inspection?

What I have in mind is that they are producing a lot of atomic energy already; that is, atomic reactors. And I don't know how much atomic power they are producing but they are perhaps second to the United States in capabilities in an atomic way?

Secretary DULLES. Under the system, Senator, the countries which themselves are not recipients of Agency aid are not subject to inspection. This would not bring about inspection in the Soviet Union itself or in the United States, for example.

Senator LONG. In other words, the Soviet Union would become subject to inspection only in the event that the Soviet Union was a recipient of material.

Secretary DULLES. That is correct.

Senator LONG. So there is no indication here that the Soviet Union, by agreeing to this treaty, will subject itself to inspection?

Secretary DULLES. No, sir.

Senator LONG. And it being completely capable of producing all of its own requirements so long as that remains the case, the Soviet Union would not necessarily subject itself to inspection by agreeing to this atoms for peace program?

Secretary DULLES. That is correct.

Senator LONG. Thank you.

The CHAIRMAN. Mr. Hickenlooper?

DOCUMENTATION

Senator HICKENLOOPER. Mr. Chairman, I wonder if it would not be well to include in this first hearing certain of the documents which affect this treaty and incorporate the letter of transmittal from the President, the letter of transmittal to the Secretary of State, copy of the Statute of the International Atomic Energy Agency, summary report by the chairman of the United States delegation, any statement which has been made as a result of the Venezuelan communication; also, include any statements by other countries concerning any reservations or interpretations in connection with their acts of acceptance of this treaty.

I would ask that those be incorporated in the record at this point.

The CHAIRMAN. Without objection, that will be done.

(The Department of State subsequently indicated that as of the date of the hearing the only reservation which had been made by any of the seven countries which had ratified the statute is one by Switzerland. (See p. 65.))

(The documents referred to are as follows:)

MESSAGE FROM THE PRESIDENT OF THE UNITED STATES, TRANSMITTING A CERTIFIED COPY OF THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY, WHICH WAS OPEN FOR SIGNATURE AT THE UNITED NATIONS HEADQUARTERS IN NEW YORK FOR 3 MONTHS, FROM OCTOBER 26, 1956, TO JANUARY 24, 1957, AND WAS SIGNED IN BEHALF OF THE UNITED STATES OF AMERICA AND BY 79 OTHER NATIONS

THE WHITE HOUSE, *March 21, 1957.*

To the Senate of the United States:

With a view to receiving the advice and consent of the Senate to ratification, I am attaching herewith a certified copy of the Statute of the International Atomic Energy Agency. I also transmit for the information of the Senate a report addressed to me by the Secretary of State in regard to the statute, together with certain related papers.

When the Statute of the International Atomic Energy Agency was open for signature at United Nations Headquarters in New York for 3 months, from October 26, 1956, to January 24, 1957, it was signed in behalf of the United States of America and by 79 other nations. It is the product of almost 3 years of negotiations, beginning with my address to the United Nations on December 8, 1953. There I expressed the profound hope of the American people, a hope shared by people throughout the world, that means could be found to harness the atom to the labors of peace.

Today, in the grim necessity of preserving the peace, the free world must turn to the deadly power of the atom as a guardian of freedom and a prime deterrent to aggression. Yet the true promise of the atom is not for destructive purposes but for constructive purposes. And, in America, we can already see in atomic energy an enormous potential for human benefit: electric power, treatment of disease, and extraordinary service to agriculture, industry, and science itself. And this is but the beginning. There is every indication that we can look forward to even greater values of atomic energy in America.

The peoples of other nations also see great hope in the atom for the development of their economies and advancement of their welfare. They devoutly wish for ways and means of directing the atom to peaceful uses. There is widespread appreciation of the role the United States has already played in the great atoms-for-peace program to help many of these nations start their own atomic energy programs.

Now, in our proposal to the United Nations for the establishment of an International Atomic Energy Agency, we have answered the basic desire of many nations for an international body to which all may belong—a body in which all may safely pool their knowledge and skill for the advancement of all; from which all may draw knowledge, advice, and nuclear fuels to aid their individual efforts in developing the atom for peaceful employment.

This promise of increased well-being for the people of the world offered by the International Atomic Energy Agency is a major purpose of our proposal. Another is the extension of our fixed and unending determination to open and widen all possible avenues toward a just and enduring world peace. In promoting these purposes, the International Atomic Energy Agency would provide a practical meeting place—common ground of cooperative effort among nations. Thus, through shared hope and work, the world would come to realize the immense possibilities of the atom for the benefit of all.

The statute and the Agency which it will establish hold promise of important progress in that direction. They constitute both a practical approach and a symbol of all that people of good will hope to see accomplished through the use of atomic energy. They offer the underdeveloped nations in particular an earlier availability of the benefits flowing from the constructive uses of the atom, and afford all countries the prospect of mutually stimulated scientific advance dedicated to the welfare of mankind.

To achieve the confidence essential to cooperation among members of the International Atomic Energy Agency, great care has been exercised to insure that fissionable material will be safeguarded to prevent its diversion to any military purpose. A comprehensive safeguard system is provided by the statute. This will apply to all aspects of the Agency's activity involving nuclear materials. A key part of this system is a plan of thorough international inspection. The United States will provide fissionable materials for Agency projects only as this safeguard system is put into effect. I am satisfied that the security of the United States will not be endangered by materials made available to or through this Agency. I should add that the United States is under no obligation to disclose secret information to this Agency.

Authority for directing the Agency will rest primarily in a Board of Governors. The method of choosing these Governors was considered with particular care. The formula finally agreed upon balances geographic considerations with the capacity of the cooperating nations to supply technical or material support to agency projects. This formula assures the protection of the interests of America and the free world. There is also reasonable assurance against entry into the Agency of nations which are excluded from the United Nations, and which were excluded from the Conference and from Agency membership by overwhelming vote on a number of occasions.

This statute is the work of many. It reflects the experience of those concerned with our Nation's efforts since World War II to relieve the burdens of armament for all people. It is consistent with the policies of our present Atomic Energy Act. It has profited by the addition of suggestions from bipartisan congressional hearings.

It is my firm belief that this statute, and the International Atomic Energy Agency provided by it, are in the present and future interest of our country. They have my wholehearted support. I urge early consent to the ratification of the statute, so that the United States which proposed the establishment of this new instrument of peaceful progress may be among the first to give it final approval.

DWIGHT D. EISENHOWER.

DEPARTMENT OF STATE,
Washington, February 21, 1957.

The PRESIDENT,
The White House:

I have the honor to submit to you, with a view to transmission to the Senate for advice and consent to ratification, a certified copy of the Statute of the International Atomic Energy Agency, which was open for signature at United Nations

Headquarters in New York from October 26, 1956, to January 24, 1957, and during that period was signed in behalf of the United States of America and 79 other nations.

The purpose of this treaty is to establish an International Atomic Energy Agency pursuant to the atoms-for-peace proposal made by you in your historic address before the General Assembly of the United Nations on December 8, 1953. In that address you outlined your plan for an international agency, to be established under the aegis of the United Nations, with responsibility for finding methods to apply atomic materials to the abundant production of power and to the needs of agriculture, medicine, and other peaceful pursuits of mankind.

In the months following your proposal, discussions were undertaken among those nations having either developed resources of nuclear raw materials or advanced atomic energy programs. An eight-nation group, composed of representatives of the United States, Australia, Belgium, Canada, France, Portugal, the Union of South Africa, and the United Kingdom, worked early in 1954 to prepare a first draft of a statute for the proposed agency. The subject was thoroughly debated at the Ninth General Assembly in 1954. On December 4, 1954, the General Assembly of the United Nations by unanimous vote endorsed the proposal to create an International Atomic Energy Agency.

A report on the progress of the negotiation of the statute was made to members of the Joint Committee on Atomic Energy in July 1955 and appropriate revisions were made in the draft statute on the basis of their comments.

On August 22, 1955, a draft statute was circulated to get the views of all members of the United Nations or of the specialized agencies, a total at that time of 84 states. The subject was again debated at the Tenth General Assembly in 1955, and a resolution endorsing the efforts of the negotiating group was unanimously adopted.

On February 27, 1956, the working group, now expanded to 12 nations by the inclusion of Brazil, Czechoslovakia, India, and the Union of Soviet Socialist Republics, met in Washington at the invitation of the United States. This group worked to revise the draft statute. It considered, and often adopted, ideas and suggestions not only of the members of the drafting group but of other nations the world over from which comments had been received. The resulting draft, adopted on April 18 by the working group reflected to a great degree the balance of views of a large number of states.

In June 1956 a further report on the progress of negotiations was made to members of the Joint Committee on Atomic Energy.

The document negotiated by the group of 12 nations was presented to the delegates of 81 nations at the opening of the Conference on the Statute of the International Atomic Energy Agency, which convened at United Nations Headquarters in New York on September 20, 1956. The United States delegation to that Conference was under the chairmanship of Ambassador James J. Wadsworth, deputy representative of the United States to the United Nations and United States representative for International Atomic Energy Agency Negotiations. It included congressional advisers, designated by the President of the Senate and the Speaker of the House of Representatives, as well as advisers from the Department of State and the Atomic Energy Commission. The Conference was presided over by Ambassador João Carlos Muniz of Brazil.

The Conference, at which the largest number of nations in history were gathered together, was distinguished by earnestness of purpose and understanding. Notwithstanding the complexity of the subjects, and the newness of the field in which it was working, the Conference found it possible, at the end of 36 days of fruitful discussion and negotiation, to arrive at agreement on the setting up of the International Atomic Energy Agency and its statute. The statute was opened for signature on October 26, 1956, and was signed on that date by plenipotentiaries of 70 of the 81 nations represented at the Conference. During the 90-day period during which, by its terms, the statute remained open for signature, it was signed in behalf of 10 other nations.

The statute provides for the establishment of an organization to assist the nations of the world in entering the atomic era. Created under the aegis of the United Nations, the International Atomic Energy Agency will function as an autonomous international organization and will establish an approprite relationship with the United Nations consistent with the Agency's statute. The purpose of the Agency is to supply a means through which the promise of nuclear energy will be open to the benefit of all, to be utilized as an instrument of progress and peace.

To achieve its goal, the Agency will take advantage of the means that will be voluntarily placed at its disposal by member states. It will extend aid in the form of fissionable materials, source materials, special equipment, and technical assistance. The Agency's assistance will be based on agreements freely negotiated between governments and the Agency. Provision is made for controls and safeguards to ensure that fissionable materials made available through the Agency will not be diverted to nonpeaceful purposes and will not endanger the health of populations or individuals. The controls and safeguards are intended to guarantee the peaceful and safe utilization of materials supplied by the Agency, or used in Agency-sponsored projects, and of fissionable byproducts derived therefrom.

There is transmitted herewith a summary of the statute directed to its specific provisions. There is also transmitted a copy of the report submitted to the Secretary of State by the chairman of the United States delegation to the Conference on the statute. In addition, a copy of the communication dated October 25, 1956, to which reference is made in the statement accompanying the Venezuelan signatures to the statute, is included, together with a translation thereof.

It is planned that a draft Participation Act to provide for appointment of representatives of the United States to the Agency, and to make provision with respect to United States participation in the Agency, will be submitted to the Congress early in the present session.

It is earnestly hoped that the Senate will give prompt consideration to the Statute of the International Atomic Energy Agency and that the Congress will enact without delay the proposed Participation Act. Under your personal initiative the United States has been the principal advocate of an international organization designed to turn the mighty force of the atom from the devastation of war to the constructive avenues of peace. It is hoped that the United States may be among the first to ratify the Statute of the International Atomic Energy Agency and, by our leadership and support, to help to ensure the success of that Agency from its inception.

Respectfully submitted.

JOHN FOSTER DULLES.

(Enclosures: (1) Certified copy of the Statute of the International Atomic Energy Agency; (2) summary; (3) report by chairman of United States delegation; (4) Venezuelan communication dated October 25, 1956, and translation.)

STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY [1]

ARTICLE I

Establishment of the Agency

The Parties hereto establish an International Atomic Energy Agency (hereinafter referred to as "the Agency") upon the terms and conditions hereinafter set forth.

ARTICLE II

Objectives

The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.

ARTICLE III

Functions

A. The Agency is authorized:

1. To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world; and, if requested to do so, to act as an intermediary for the purposes of securing the performance of services or the supplying of materials, equipment, or facilities by one member of the Agency for another; and to perform any operation or service useful in research on, or development or practical application of, atomic energy for peaceful purposes;

[1 Conference on the Statute held at Headquarters of the United Nations, 20 September to 26 October 1956.]

2. To make provision, in accordance with this Statute, for materials, services, equipment, and facilities to meet the needs of research on, and development and practical application of, atomic energy for peaceful purposes, including the production of electric power, with due consideration for the needs of the under-developed areas of the world;

3. To foster the exchange of scientific and technical information on peaceful uses of atomic energy;

4. To encourage the exchange and training of scientists and experts in the field of peaceful uses of atomic energy;

5. To establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or, at the request of a State, to any of that State's activities in the field of atomic energy;

6. To establish or adopt, in consultation and, where appropriate, in collaboration with the competent organs of the United Nations and with the specialized agencies concerned, standards of safety for protection of health and minimization of danger to life and property (including such standards for labour conditions), and to provide for the application of these standards to its own operations as well as to the operations making use of materials, services, equipment, facilities, and information made available by the Agency or at its request or under its control or supervision; and to provide for the application of these standards, at the request of the parties, to operations under any bilateral or multilateral arrangement, or, at the request of a State, to any of that State's activities in the field of atomic energy;

7. To acquire or establish any facilities, plant and equipment useful in carrying out its authorized functions, whenever the facilities, plant, and equipment otherwise available to it in the area concerned are inadequate or available only on terms it deems unsatisfactory.

B. In carrying out its functions, the Agency shall:

1. Conduct its activities in accordance with the purposes and principles of the United Nations to promote peace and international cooperation, and in conformity with policies of the United Nations furthering the establishment of safeguarded world-wide disarmament and in conformity with any international agreements entered into pursuant to such policies;

2. Establish control over the use of special fissionable materials received by the Agency, in order to ensure that these materials are used only for peaceful purposes;

3. Allocate its resources in such a manner as to secure efficient utilization and the greatest possible general benefit in all areas of the world, bearing in mind the special needs of the underdeveloped areas of the world;

4. Submit reports on its activities annually to the General Assembly of the United Nations and, when appropriate, to the Security Council; if in connexion with the activities of the Agency there should arise questions that are within the competence of the Security Council, the Agency shall notify the Security Council, as the organ bearing the main responsibility for the maintenance of international peace and security, and may also take the measures open to it under this Statute, including those provided in paragraph C of article XII;

5. Submit reports to the Economic and Social Council and other organs of the United Nations on matters within the competence of these organs.

C. In carrying out its functions, the Agency shall not make assistance to members subject to any political, economic, military, or other conditions incompatible with the provisions of this Statute.

D. Subject to the provisions of this Statute and to the term of agreements concluded between a State or a group of States and the Agency which shall be in accordance with the provisions of the Statute, the activities of the Agency shall be carried out with due observance of the sovereign rights of States.

ARTICLE IV

Membership

A. The initial members of the Agency shall be those States Members of the United Nations or of any of the specialized agencies which shall have signed this Statute within ninety days after it is opened for signature and shall have deposited an instrument of ratification.

B. Other members of the Agency shall be those States, whether or not Members of the United Nations or of any of the specialized agencies, which deposit an instrument of acceptance of this Statute after their membership has been approved by the General Conference upon the recommendation of the Board of Governors. In recommending and approving a State for membership, the Board of Governors and the General Conference shall determine that the State is able and willing to carry out the obligations of membership in the Agency, giving due consideration to its ability and willingness to act in accordance with the purposes and principles of the Charter of the United Nations.

C. The Agency is based on the principle of the sovereign equality of all its members, and all members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with this Statute.

ARTICLE V

General Conference

A. A General Conference consisting of representatives of all members shall meet in regular annual session and in such special sessions as shall be convened by the Director General at the request of the Board of Governors or of a majority of members. The sessions shall take place at the headquarters of the Agency unless otherwise determined by the General Conference.

B. At such sessions, each member shall be represented by one delegate who may be accompanied by alternates and by advisers. The cost of attendance of any delegation shall be borne by the member concerned.

C. The General Conference shall elect a President and such other officers as may be required at the beginning of each session. They shall hold office for the duration of the session. The General Conference, subject to the provisions of this Statute, shall adopt its own rules of procedure. Each member shall have one vote. Decisions pursuant to paragraph H of article XIV, paragraph C of article XVIII and paragraph B of article XIX shall be made by a two-thirds majority of the members present and voting. Decisions on other questions, including the determination of additional questions or categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting. A majority of members shall constitute a quorum.

D. The General Conference may discuss any questions or any matters within the scope of this Statute or relating to the powers and functions of any organs provided for in this Statute, and may make recommendations to the membership of the Agency or to the Board of Governors or to both on any such questions or matters.

E. The General Conference shall:

1. Elect members of the Board of Governors in accordance with article VI;
2. Approve States for membership in accordance with article IV;
3. Suspend a member from the privileges and rights of membership in accordance with article XIX;
4. Consider the annual report of the Board;
5. In accordance with article XIV, approve the budget of the Agency recommended by the Board or return it with recommendations as to its entirety or parts to the Board, for resubmission to the General Conference;
6. Approve reports to be submitted to the United Nations as required by the relationship agreement between the Agency and the United Nations, except reports referred to in paragraph C of article XII, or return them to the Board with its recommendations;
7. Approve any agreement or agreements between the Agency and the United Nations and other organizations as provided in article XVI or return such agreements with its recommendations to the Board, for resubmission to the General Conference;
8. Approve rules and limitations regarding the exercise of borrowing powers by the Board, in accordance with paragraph G of article XIV; approve rules regarding the acceptance of voluntary contributions to the Agency; and approve, in accordance with paragraph F of article XIV, the manner in which the general fund referred to in that paragraph may be used;
9. Approve amendments to this Statute in accordance with paragraph C of article XVIII;
10. Approve the appointment of the Director General in accordance with paragraph A of article VII.

F. The General Conference shall have the authority:

1. To take decisions on any matter specifically referred to the General Conference for this purpose by the Board;

2. To propose matters for consideration by the Board and request from the Board reports on any matters relating to the functions of the Agency.

ARTICLE VI

Board of Governors

A. The Board of Governors shall be composed as follows:

1. The outgoing Board of Governors (or in the case of the first Board, the Preparatory Commission referred to in Annex I) shall designate for membership on the Board the five members most advanced in the technology of atomic energy including the production of source materials and the member most advanced in the technology of atomic energy including the production of source materials in each of the following areas not represented by the aforesaid five:

(1) North America
(2) Latin America
(3) Western Europe
(4) Eastern Europe
(5) Africa and the Middle East
(6) South Asia
(7) South East Asia and the Pacific
(8) Far East.

2. The outgoing Board of Governors (or in the case of the first Board, the Preparatory Commission referred to in Annex I) shall designate for membership on the Board two members from among the following other producers of source materials: Belgium, Czechoslovakia, Poland, and Portugal; and shall also designate for membership on the Board one other member as a supplier of technical assistance. No member in this category in any one year will be eligible for redesignation in the same category for the following year.

3. The General Conference shall elect ten members to membership on the Board of Governors, with due regard to equitable representation on the Board as a whole of the members in the areas listed in sub-paragraph A–1 of this article, so that the Board shall at all times include in this category a representative of each of those areas except North America. Except for the five members chosen for a term of one year in accordance with paragraph D of this article, no member in this category in any one term of office will be eligible for re-election in the same category for the following term of office.

B. The designations provided for in subparagraphs A–1 and A–2 of this article shall take place not less than sixty days before each regular annual session of the General Conference. The elections provided for in sub-paragraph A–3 of this article shall take place at regular annual sessions of the General Conference.

C. Members represented on the Board of Governors in accordance with subparagraphs A–1 and A–2 of this article shall hold office from the end of the next regular annual session of the General Conference after their designation until the end of the following regular annual session of the General Conference.

D. Members represented on the Board of Governors in accordance with subparagraph A–3 of this article shall hold office from the end of the regular annual session of the General Conference at which they are elected until the end of the second regular annual session of the General Conference thereafter. In the election of these members for the first Board, however, five shall be chosen for a term of one year.

E. Each member of the Board of Governors shall have one vote. Decisions on the amount of the Agency's budget shall be made by a two-thirds majority of those present and voting, as provided in paragraph H of article XIV. Decisions on other questions, including the determination of additional questions or categories of questions to be decided by a two-thirds majority, shall be made by a majority of those present and voting. Two-thirds of all members of the Board shall constitute a quorum.

F. The Board of Governors shall have authority to carry out the functions of the Agency in accordance with this Statute, subject to its responsibilities to the General Conference as provided in this Statute.

G. The Board of Governors shall meet at such times as it may determine. The meetings shall take place at the headquarters of the Agency unless otherwise determined by the Board.

H. The Board of Governors shall elect a Chairman and other officers from among its members and, subject to the provisions of this Statute, shall adopt its own rules of procedure.

I. The Board of Governors may establish such committees as it deems advisable. The Board may appoint persons to represent it in its relations with other organizations.

J. The Board of Governors shall prepare an annual report to the General Conference concerning the affairs of the Agency and any projects approved by the Agency. The Board shall also prepare for submission to the General Conference such reports as the Agency is or may be required to make to the United Nations or to any other organization the work of which is related to that of the Agency. These reports, along with the annual reports, shall be submitted to members of the Agency at least one month before the regular annual session of the General Conference.

ARTICLE VII

Staff

A. The staff of the Agency shall be headed by a Director General. The Director General shall be appointed by the Board of Governors with the approval of the General Conference for a term of four years. He shall be the chief administrative officer of the Agency.

B. The Director General shall be responsible for the appointment, organization, and functioning of the staff and shall be under the authority of and subject to the control of the Board of Governors. He shall perform his duties in accordance with regulations adopted by the Board.

C. The staff shall include such qualified scientific and technical and other personnel as may be required to fulfil the objectives and functions of the Agency. The Agency shall be guided by the principle that its permanent staff shall be kept to a minimum.

D. The paramount consideration in the recruitment and employment of the staff and in the determination of the conditions of service shall be to secure employees of the highest standards of efficiency, technical competence, and integrity. Subject to this consideration, due regard shall be paid to the contributions of members to the Agency and to the importance of recruiting the staff on as wide a geographical basis as possible.

E. The terms and conditions on which the staff shall be appointed, remunerated, and dismissed shall be in accordance with regulations made by the Board of Governors, subject to the provisions of this Statute and to general rules approved by the General Conference on the recommendation of the Board.

F. In the performance of their duties, the Director General and the staff shall not seek or receive instructions from any source external to the Agency. They shall refrain from any action which might reflect on their position as officials of the Agency; subject to their responsibilities to the Agency, they shall not disclose any industrial secret or other confidential information coming to their knowledge by reason of their official duties for the Agency. Each member undertakes to respect the international character of the responsibilities of the Director General and the staff and shall not seek to influence them in the discharge of their duties.

G. In this article the term "staff" includes guards.

ARTICLE VIII

Exchange of information

A. Each member should make available such information as would, in the judgment of the member, be helpful to the Agency.

B. Each member shall make available to the Agency all scientific information developed as a result of assistance extended by the Agency pursuant to article XI.

C. The Agency shall assemble and make available in an accessible form the information made available to it under paragraphs A and B of this article. It shall take positive steps to encourage the exchange among its members of

information relating to the nature and peaceful uses of atomic energy and shall serve as an intermediary among its members for this purpose.

ARTICLE IX

Supplying of materials

A. Members may make available to the Agency such quantities of special fissionable materials as they deem advisable and on such terms as shall be agreed with the Agency. The materials made available to the Agency may, at the discretion of the member making them available, be stored either by the member concerned or, with the agreement of the Agency, in the Agency's depots.

B. Members may also make available to the Agency source materials as defined in article XX and other materials. The Board of Governors shall determine the quantities of such materials which the Agency will accept under agreements provided for in article XIII.

C. Each member shall notify the Agency of the quantities, form, and composition of special fissionable materials, source materials, and other materials which that member is prepared, in conformity with its laws, to make available immediately or during a period specified by the Board of Governors.

D. On request of the Agency a member shall, from the materials which it has made available, without delay deliver to another member or group of members such quantities of such materials as the Agency may specify, and shall without delay deliver to the Agency itself such quantities of such materials as are really necessary for operations and scientific research in the facilities of the Agency.

E. The quantities, form and composition of materials made available by any member may be changed at any time by the member with the approval of the Board of Governors.

F. An initial notification in accordance with paragraph C of this article shall be made within three months of the entry into force of this Statute with respect to the member concerned. In the absence of a contrary decision of the Board of Governors, the materials initially made available shall be for the period of the calendar year succeeding the year when this Statute takes effect with respect to the member concerned. Subsequent notifications shall likewise, in the absence of a contrary action by the Board, relate to the period of the calendar year following the notification and shall be made no later than the first day of November of each year.

G. The Agency shall specify the place and method of delivery and, where appropriate, the form and composition, of materials which it has requested a member to deliver from the amounts which that member has notified the Agency it is prepared to make available. The Agency shall also verify the quantities of materials delivered and shall report those quantities periodically to the members.

H. The Agency shall be responsible for storing and protecting materials in its possession. The Agency shall ensure that these materials shall be safeguarded against (1) hazards of the weather, (2) unauthorized removal or diversion, (3) damage or destruction, including sabotage, and (4) forcible seizure. In storing special fissionable materials in its possession, the Agency shall ensure the geographical distribution of these materials in such a way as not to allow concentration of large amounts of such materials in any one country or region of the world.

I. The Agency shall as soon as practicable establish or acquire such of the following as may be necessary:

1. Plant, equipment, and facilities for the receipt, storage, and issue of materials;
2. Physical safeguards;
3. Adequate health and safety measures;
4. Control laboratories for the analysis and verification of materials received;
5. Housing and administrative facilities for any staff required for the foregoing.

J. The materials made available pursuant to this article shall be used as determined by the Board of Governors in accordance with the provisions of this Statute. No member shall have the right to require that the materials it makes available to the Agency be kept separately by the Agency or to designate the specific project in which they must be used.

ARTICLE X

Services, equipment, and facilities

Members may make available to the Agency services, equipment, and facilities which may be of assistance in fulfilling the Agency's objectives and functions.

ARTICLE XI

Agency projects

A. Any member or group of members of the Agency desiring to set up any project for research on, or development or practical application of, atomic energy for peaceful purposes may request the assistance of the Agency in securing special fissionable and other materials, services, equipment, and facilities necessary for this purpose. Any such request shall be accompanied by an explanation of the purpose and extent of the project and shall be considered by the Board of Governors.

B. Upon request, the Agency may also assist any member or group of members to make arrangements to secure necessary financing from outside sources to carry out such projects. In extending this assistance, the Agency will not be required to provide any guarantees or to assume any financial responsibility for the project.

C. The Agency may arrange for the supplying of any materials, services, equipment, and facilities necessary for the project by one or more members or may itself undertake to provide any or all of these directly, taking into consideration the wishes of the member or members making the request.

D. For the purpose of considering the request, the Agency may send into the territory of the member or group of members making the request a person or persons qualified to examine the project. For this purpose the Agency may, with the approval of the member or group of members making the request, use members of its own staff or employ suitably qualified nationals of any member.

E. Before approving a project under this article, the Board of Governors shall give due consideration to:

1. The usefulness of the project, including its scientific and technical feasibility;

2. The adequacy of plans, funds, and technical personnel to assure the effective execution of the project;

3. The adequacy of proposed health and safety standards for handling and storing materials and for operating faciilties;

4. The inability of the member or group of members making the request to secure the necessary finances, materials, facilities, equipment, and services;

5. The equitable distribution of materials and other resources available to the Agency;

6. The special needs of the under-developed areas of the world; and

7. Such other matters as may be relevant.

F. Upon approving a project, the Agency shall enter into an agreement with the member or group of members submitting the project, which agreement shall:

1. Provide for allocation to the project of any required special fissionable or other materials;

2. Provide for transfer of special fissionable materials from their then place of custody, whether the materials be in the custody of the Agency or of the member making them available for use in Agency projects, to the member or group of members submitting the project, under conditions which ensure the safety of any shipment required and meet applicable health and safety standards;

3. Set forth the terms and conditions, including charges, on which any materials, services, equipment, and facilities are to be provided by the Agency itself, and, if any such materials, services, equipment, and facilities are to be provided by a member, the terms and conditions as arranged for by the member or group of members submitting the project and the supplying member;

4. Include undertakings by the member or group of members submitting the project: (*a*) that the assistance provided shall not be used in such a way as to further any military purpose; and (*b*) that the project shall be subject to the safeguards provided for in article XII, the relevant safeguards being specified in the agreement;

5. Make appropriate provision regarding the rights and interests of the Agency and the member or members concerned in any inventions or discoveries, or any patents therein, arising from the project;

6. Make appropriate provision regarding settlement of disputes;

7. Include such other provisions as may be appropriate.

G. The provisions of this article shall also apply where appropriate to a request for materials, services, facilities, or equipment in connexion with an existing project.

ARTICLE XII

Agency safeguards

A. With respect to any Agency project, or other arrangement where the Agency is requested by the parties concerned to apply safeguards, the Agency shall have the following rights and responsibilities to the extent relevant to the project or arrangement:

1. To examine the design of specialized equipment and facilities including nuclear reactors, and to approve it only from the viewpoint of assuring that it will not further any military purpose, that it complies with applicable health and safety standards, and that it will permit effective application of the safeguards provided for in this article;

2. To require the observance of any health and safety measures prescribed by the Agency;

3. To require the maintenance and production of operating records to assist in ensuring accountability for source and special fissionable materials used or produced in the project or arrangement;

4. To call for and receive progress reports;

5. To approve the means to be used for the chemical processing of irradiated materials solely to ensure that this chemical processing will not lend itself to diversion of materials for military purposes and will comply with applicable health and safety standards; to require that special fissionable materials recovered or produced as a by-product be used for peaceful purposes under continuing Agency safeguards for research or in reactors, existing or under construction, specified by the member or members concerned; and to require deposit with the Agency of any excess of any special fissionable materials recovered or produced as a by-product over what is needed for the above-stated uses in order to prevent stockpiling of these materials, provided that thereafter at the request of the member or members concerned special fissionable materials so deposited with the Agency shall be returned promptly to the member or members concerned for use under the same provisions as stated above;

6. To send into the territory of the recipient State or States inspectors, designated by the Agency after consultation with the State or States concerned, who shall have access at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment, or facilities which are required by this Statute to be safeguarded, as necessary to account for source and special fissionable materials supplied and fissionable products and to determine whether there is compliance with the undertaking against use in futherance of any military purpose referred to in sub-paragraph F–4 of article XI, with the health and safety measures referred to in sub-paragraph A–2 of this article, and with any other conditions prescribed in the agreement between the Agency and the State or States concerned. Inspectors designated by the Agency shall be accompanied by representatives of the authorities of the State concerned, if that State so requests, provided that the inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions;

7. In the event of non-compliance and failure by the recipient State or States to take requested corrective steps within a reasonable time, to suspend or terminate assistance and withdraw any materials and equipment made available by the Agency or a member in furtherance of the project.

B. The Agency shall, as necessary, establish a staff of inspectors. The staff of inspectors shall have the responsibility of examining all operations conducted by the Agency itself to determine whether the Agency is complying with the health and safety measures prescribed by it for application to projects subject to its approval, supervision or control, and whether the Agency is taking adequate measures to prevent the source and special fissionable materials in its custody or used

or produced in its own operations from being used in furtherance of any military purpose. The Agency shall take remedial action forthwith to correct any non-compliance or failure to take adequate measures.

C. The staff of inspectors shall also have the responsibility of obtaining and verifying the accounting referred to in sub-paragraph A–6 of this article and of determining whether there is compliance with the undertaking referred to in sub-paragraph F–4 of article XI, with the measures referred to in sub-paagraph A–2 of this article, and with all other conditions of the project prescribed in the agreement between the Agency and the State or States concerned. The inspectors shall report any non-compliance to the Director General who shall thereupon transmit the report to the Board of Governors. The Board shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations. In the event of failure of the recipient State or States to take fully corrective action within a reasonable time, the Board may take one or both of the following measures: direct curtailment or suspension of assistance being provided by the Agency or by a member, and call for the return of materials and equipment made available to the recipient member or group of members. The Agency may also, in accordance with article XIX, suspend any non-complying member from the exercise of the privileges and rights of membership.

ARTICLE XIII

Reimbursement of members

Unless otherwise agreed upon between the Board of Governors and the member furnishing to the Agency materials, services, equipment, or facilities, the Board shall enter into an agreement with such member providing for reimbursement for the items furnished.

ARTICLE XIV

Finance

A. The Board of Governors shall submit to the General Conference the annual budget estimates for the expenses of the Agency. To facilitate the work of the Board in this regard, the Director General shall initially prepare the budget estimates. If the General Conference does not approve the estimates, it shall return them together with its recommendations to the Board. The Board shall then submit further estimates to the General Conference for its approval.

B. Expenditures of the Agency shall be classified under the following categories:

1. Administrative expenses: these shall include:

(*a*) Costs of the staff of the Agency other than the staff employed in connexion with materials, services, equipment, and facilities referred to in sub-paragraph B–2 below; costs of meetings; and expenditures required for the preparation of Agency projects and for the distribution of information;

(*b*) Costs of implementing the safeguards referred to in article XII in relation to Agency projects or, under sub-paragraph A–5 of article III, in relation to any bilateral or multilateral arrangement, together with the costs of handling and storage of special fissionable material by the Agency other than the storage and handling charges referred to in paragraph E below;

2. Expenses, other than those included in sub-paragraph 1 of this paragraph, in connexion with any materials, facilities, plant, and equipment acquired or established by the Agency in carrying out its authorized functions, and the costs of materials, services, equipment, and facilities provided by it under agreements with one or more members.

C. In fixing the expenditures under sub-paragraph B–1 (*b*) above, the Board of Governors shall deduct such amounts as are recoverable under agreements regarding the application of safeguards between the Agency and parties to bilateral or multilateral arrangements.

D. The Board of Governors shall apportion the expenses referred to in sub-paragraph B–1 above, among members in accordance with a scale to be fixed by the General Conference. In fixing the scale the General Conference shall be

92318—57——3

guided by the principles adopted by the United Nations in assessing contributions of Member States to the regular budget of the United Nations.

E. The Board of Governors shall establish periodically a scale of charges, including reasonable uniform storage and handling charges, for materials, services, equipment, and facilities furnished to members by the Agency. The scale shall be designed to produce revenues for the Agency adequate to meet the expenses and costs referred to in sub-paragraph B–2 above, less any voluntary contributions which the Board of Governors may, in accordance with paragraph F, apply for this purpose. The proceeds of such charges shall be placed in a separate fund which shall be used to pay members for any materials, services, equipment, or facilities furnished by them and to meet other expenses referred to in sub-paragraph B–2 above which may be incurred by the Agency itself.

F. Any excess of revenues referred to in paragraph E over the expenses and costs there referred to, and any voluntary contributions to the Agency, shall be placed in a general fund which may be used as the Board of Governors, with the approval of the General Conference, may determine.

G. Subject to rules and limitations approved by the General Conference, the Board of Governors shall have the authority to exercise borrowing powers on behalf of the Agency without, however, imposing on members of the Agency any liability in respect of loans entered into pursuant to this authority, and to accept voluntary contributions made to the Agency.

H. Decisions of the General Conference on financial questions and of the Board of Governors on the amount of the Agency's budget shall require a two-thirds majority of those present and voting.

ARTICLE XV

Privileges and immunities

A. The Agency shall enjoy in the territory of each member such legal capacity and such privileges and immunities as are necessary for the exercise of its functions.

B. Delegates of members together with their alternates and advisers, Governors appointed to the Board together with their alternates and advisers, and the Director General and the staff of the Agency, shall enjoy such privileges and immunities as are necessary in the independent exercise of their functions in connexion with the Agency.

C. The legal capacity, privileges, and immunities referred to in this article shall be defined in a separate agreement or agreements between the Agency, represented for this purpose by the Director General acting under instructions of the Board of Governors, and the members.

ARTICLE XVI

Relationship with other organizations

A. The Board of Governors, with the approval of the General Conference, is authorized to enter into an agreement or agreement establishing an appropriate relationship between the Agency and the United Nations and any other organizations the work of which is related to that of the Agency.

B. The agreement or agreements establishing the relationship of the Agency and the United Nations shall provide for:

1. Submission by the Agency of reports as provided for in sub-paragraphs B–4 and B–5 of article III;

2. Consideration by the Agency of resolutions relating to it adopted by the General Assembly or any of the Councils of the United Nations and the submission of reports, when requested, to the appropriate organ of the United Nations on the action taken by the Agency or by its members in accordance with this Statute as a result of such consideration.

ARTICLE XVII

Settlement of disputes

A. Any question or dispute concerning the interpretation or application of this Statute which is not settled by negotiation shall be referred to the International Court of Justice in conformity with the Statute of the Court, unless the parties concerned agree on another mode of settlement.

B. The General Conference and the Board of Governors are separately empowered, subject to authorization from the General Assembly of the United Nations, to request the International Court of Justice to give an advisory opinion on any legal question arising within the scope of the Agency's activities.

ARTICLE XVIII

Amendments and withdrawals

A. Amendments to this Statute may be proposed by any member. Certified copies of the text of any amendment proposed shall be prepared by the Director General and communicated by him to all members at least ninety days in advance of its consideration by the General Conference.

B. At the fifth annual session of the General Conference following the coming into force of this Statute, the question of a general review of the provisions of this Statute shall be placed on the agenda of that session. On approval by a majority of the members present and voting, the review will take place at the following General Conference. Thereafter, proposals on the question of a general review of this Statute may be submitted for decision by the General Conference under the same procedure.

C. Amendments shall come into force for all members when:

(i) Approved by the General Conference by a two-thirds majority of those present and voting after consideration of observations submitted by the Board of Governors on each proposed amendment, and

(ii) Accepted by two-thirds of all the members in accordance with their respective constitutional processes. Acceptance by a member shall be effected by the deposit of an instrument of acceptance with the depositary Government referred to in paragraph C of article XXI.

D. At any time after five years from the date when this Statute shall take effect in accordance with paragraph E of article XXI or whenever a member is unwilling to accept an amendment to this Statute, it may withdraw from the Agency by notice in writing to that effect given to the depositary Government referred to in paragraph C of article XXI, which shall promptly inform the Board of Governors and all members.

E. Withdrawal by a member from the Agency shall not affect its contractual obligations entered into pursuant to article XI or its budgetary obligations for the year in which it withdraws.

ARTICLE XIX

Suspension of privileges

A. A member of the Agency which is in arrears in the payment of its financial contributions to the Agency shall have no vote in the Agency if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two years. The General Conference may, nevertheless, permit such a member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the member.

B. A member which has persistently violated the provisions of this Statute or of any agreement entered into by it pursuant to this Statute may be suspended from the exercise of the privileges and rights of membership by the General Conference acting by a two-thirds majority of the members present and voting upon recommendation by the Board of Governors.

ARTICLE XX

Definitions

As used in this Statute:

1. The term "special fissionable material" means plutonium-239; uranium-233; uranium enriched in the isotopes 235 or 233; any material containing one or more of the foregoing; and such other fissionable material as the Board of Governors shall from time to time determine; but the term "special fissionable material" does not include source material.

2. The term "uranium enriched in the isotopes 235 or 233" means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature.

3. The term "source material" means uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other material containing one or more of the foregoing in such concentration as the Board of Governors shall from time to time determine; and such other material as the Board of Governors shall from time to time determine.

ARTICLE XXI

Signature, acceptance, and entry into force

A. This Statute shall be open for signature on 26 October 1956 by all States Members of the United Nations or of any of the specialized agencies and shall remain open for signature by those States for a period of ninety days.

B. The signatory States shall become parties to this Statute by deposit of an instrument of ratification.

C. Instruments of ratification by signatory States and instruments of acceptance by States whose membership has been approved under paragraph B of article IV of this Statute shall be deposited with the Government of the United States of America, hereby designated as depositary Government.

D. Ratification or acceptance of this Statute shall be effected by States in accordance with their respective constitutional processes.

E. This Statute, apart from the Annex, shall come into force when eighteen States have deposited instruments of ratification in accordance with paragraph B of this article, provided that such eighteen States shall include at least three of the following States: Canada, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. Instruments of ratification and instruments of acceptance deposited thereafter shall take effect on the date of their receipt.

F. The depositary Government shall promptly inform all States signatory to this Statute of the date of each deposit of ratification and the date of entry into force of the Statute. The depositary Government shall promptly inform all signatories and members of the dates on which States subsequently become parties thereto.

G. The Annex to this Statute shall come into force on the first day this Statute is open for signature.

ARTICLE XXII

Registration with the United Nations

A. This Statute shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

B. Agreements between the Agency and any member or members, agreements between the Agency and any other organization or organizations, and agreements between members subject to approval of the Agency, shall be registered with the Agency. Such agreements shall be registered by the Agency with the United Nations if registration is required under Article 102 of the Charter of the United Nations.

ARTICLE XXIII

Authentic texts and certified copies

This Statute, done in the Chinese, English, French, Russian and Spanish languages, each being equally authentic, shall be deposited in the archives of the depositary Government. Duly certified copies of this Statute shall be transmitted by the depositary Government to the Governments of the other signatory States and to the Governments of States admitted to membership under paragraph B of article IV.

In witness whereof the undersigned, duly authorized, have signed this Statute.

DONE at the Headquarters of the United Nations, this twenty-sixth day of October, one thousand nine hundred and fifty-six.

[Here follows a list of signatures in behalf of eighty countries. See Summary, p. 34.]

ANNEX I

PREPARATORY COMMISSION

A. A Preparatory Commission shall come into existence on the first day this Statute is open for signature. It shall be composed of one representative each of Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Portugal,

Union of South Africa, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, and United States of America, and one representative each of six other States to be chosen by the International Conference on the Statute of the International Atomic Energy Agency. The Preparatory Commission shall remain in existence until this Statute comes into force and thereafter until the General Conference has convened and a Board of Governors has been selected in accordance with article VI.

B. The expenses of the Preparatory Commission may be met by a loan provided by the United Nations and for this purpose the Preparatory Commission shall make the necessary arrangements with the appropriate authorities of the United Nations, including arrangements for repayment of the loan by the Agency. Should these funds be insufficient, the Preparatory Commission may accept advances from Governments. Such advances may be set off against the contributions of the Governments concerned to the Agency.

C. The Preparatory Commission shall:

1. Elect its own officers, adopt its own rules of procedure, meet as often as necessary, determine its own place of meeting and establish such committees as it deems necessary;

2. Appoint an executive secretary and staff as shall be necessary, who shall exercise such powers and perform such duties as the Commission may determine;

3. Make arrangements for the first session of the General Conference, including the preparation of a provisional agenda and draft rules of procedure, such session to be held as soon as possible after the entry into force of this Statute;

4. Make designations for membership on the first Board of Governors in accordance with sub-paragraphs A–1 and A–2 and paragraph B of article VI;

5. Make studies, reports, and recommendations for the first session of the General Conference and for the first meeting of the Board of Governors on subjects of concern to the Agency requiring immediate attention, including (*a*) the financing of the Agency; (*b*) the programmes and budget for the first year of the Agency; (*c*) technical problems relevant to advance planning of Agency operations; (*d*) the establishment of a permanent Agency staff; and (*e*) the location of the permanent headquarters of the Agency;

6. Make recommendations for the first meeting of the Board of Governors concerning the provisions of a headquarters agreement defining the status of the Agency and the rights and obligations which will exist in the relationship between the Agency and the host Government;

7. (*a*) Enter into negotiations with the United Nations with a view to the preparation of a draft agreement in accordance with article XVI of this Statute, such draft agreement to be submitted to the first session of the General Conference and to the first meeting of the Board of Governors; and (*b*) make recommendations to the first session of the General Conference and to the first meeting of the Board of Governors concerning the relationship of the Agency to other international organizations as contemplated in article XVI of this Statute.

SUMMARY OF THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

ARTICLES I AND II

The statute upon its entry into force will establish the International Atomic Energy Agency, the basic objective of which is to seek to accelerate and enlarge the contribution of atomic energy to peace, health, and prosperity throughout the world without at the same time furthering any military purpose.

ARTICLE III

The functions of the Agency set forth in article III of the statute are (*a*) to encourage and assist research on, and development and practical application of, atomic energy for peaceful purposes throughout the world; (*b*) to make provision for materials, services, equipment, and facilities needed to carry out the foregoing purpose: (*c*) to foster the exchange of scientific and technical information on, and the exchange and training of scientists and experts in, the

peaceful uses of atomic energy; (*d*) to establish and administer safeguards to ensure that fissionable or other materials, services, equipment, facilities, and information with which the Agency deals are not used to further any military purpose; (*e*) to participate in the establishment adoption, and application of standards of safety for the protection of health and the minimization of danger to life and property from activities in the field of atomic energy; and (*f*) to acquire or establish any facilities, plant, and equipment useful in carrying out its authorized functions.

In carrying out its functions, the Agency is required by the statute (*a*) to conduct its activities in accordance with the purposes and principles of the United Nations and, in particular, in conformity with United Nations policies furthering the establishment of a safeguarded worldwide disarmament; (*b*) to control the use of such fissionable materials as are received by the Agency so as to ensure that they are used only for peaceful purposes; (*c*) to allocate its resources so as to secure efficient utilization and wide distribution of their benefits throughout the world, bearing in mind the special needs of the underdeveloped areas; (*d*) to submit annual reports on its activities to the General Assembly of the United Nations; (*e*) when appropriate, to submit reports and information of the Security Council, Economic and Social Council, and other organs of the United Nations; (*f*) to refuse to give assistance to member countries under political, economic, military, or other conditions that are inconsistent with the statute; and (*g*) subject to the terms of any agreements that may be made between a state or group of states and the Agency, to give due observance to the sovereign rights of states.

ARTICLE IV

Initial members of the Agency are to be states members of the United Nations or of any of the specialized agencies which signed the statute within 90 days after it was opened for signature and which deposit instruments of ratification. The following 80 states signed the statute during the period it was open for signature:

Afghanistan
Albania
Argentina
Australia
Austria
Belgium
Bolivia
Brazil
Bulgaria
Burma
Byelorussian Soviet Socialist Republic
Cambodia
Canada
Ceylon
Chile
China
Colombia
Costa Rica
Cuba
Czechoslovakia
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Ethiopia
France
Federal Republic of Germany
Greece
Guatemala
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Israel
Italy
Japan
Korea
Laos
Lebanon
Liberia
Libya
Luxembourg
Mexico
Monaco
Morocco
Netherlands
New Zealand
Nicaragua
Norway
Pakistan
Panama
Paraguay
Peru
Philippine Republic
Poland
Portugal
Rumania
Spain
Sudan
Sweden
Switzerland
Syria
Thailand
Tunisia
Turkey
Ukrainian Soviet Socialist Republic
Union of South Africa
Union of Soviet Socialist Republics
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Vatican City
Venezuela
Viet-Nam
Yugoslavia

Other states may become members of the Agency if their membership is approved by the General Conference upon recommendation of the Board of Governors. In making their recommendations and approvals, the Board of Governors and the General Conference are directed to "determine that the State is able and willing

to carry out the obligations of membership in the Agency, giving due consideration to its ability and willingness to act in accordance with the purposes and principles of the Charter of the United Nations."

ARTICLE V

The General Conference of the Agency is to be composed of representatives of all the members of the Agency, each member having one vote therein. The General Conference is to meet annually and in such special sessions as are called by the Director General at the request of the Board of Governors or a majority of the members of the Agency. Each member is to be represented at the sessions of the General Conference by one delegate who may be accompanied by alternates and advisers.

The General Conference is to have powers of discussion and recommendation on any matters within the scope of the statute. In addition, it is to elect 10 members of the Board of Governors, approve states for membership, suspend members for persistent violations of the provisions of the statute (art. XIX), and consider the annual report of the Board of Governors. The General Conference is also to be responsible for approving, or recommending changes in, the budget submitted to it by the Board of Governors; approving reports to be submitted to the United Nations except reports to the Security Council of noncompliance with Agency safeguards (art. XII (C)); approving, or recommending changes in, agreements between the Agency and the United Nations or other organizations; approving rules regarding the exercise of the borrowing power, acceptance of voluntary contributions, and use of the general fund (art. XIV (F)); approving amendments to the statute; and approving the appointment of the Director General. The General Conference may make decisions on any matter referred to it for that purpose by the Board of Governors and may propose matters for consideration by the Board or request reports from the Board on any matters relating to the functions of the Agency.

ARTICLE VI

The Board of Governors is to have primary responsibility for carrying out the functions of the Agency. In particular, it is to have responsibility for determining the quantities of source materials, as defined in article XX, and other materials the Agency will accept and the use of such source and special fissionable materials as are made available to the Agency (art. IX); for approving projects for the peaceful use of atomic energy (art. XI); for imposing sanctions against members which do not comply with Agency safeguards (art. XII); for submitting to the General Conference an annual report (art. VI) and the annual budget estimates, apportioning administrative expenses among members in accordance with a scale to be fixed by the General Conference, and establishing periodically a scale of charges, for materials, services, equipment and facilities furnished to members by the Agency (art. XIV); for negotiating agreements establishing the relationship of the Agency to the United Nations and other organizations (art. XVI); for requesting, when necessary, special sessions of the General Conference (art. V); for designating nonelected members to the succeeding Board and for establishing necessary committees (art. VI); for appointing with consent of the General Conference the Director General (art. VII); and for preparing such reports as the Agency is required to make to the United Nations or other organizations (art. VI).

In forming the composition of the Board, the outgoing Board (or in the case of the first Board, the Preparatory Commission referred to in the annex to the statute) designates (*a*) the 5 members most advanced in the technology of atomic energy including the production of source materials; (*b*) the member most advanced in the technology of atomic energy including the production of source materials from each of the following areas not represented by the aforesaid 5: North America, Latin America, Western Europe, Eastern Europe, Africa and the Middle East, South Asia, South East Asia and the Pacific, and the Far East; (*c*) 2 members from the following producers of source materials: Belgium, Czechoslovakia, Poland, and Portugal; (*d*) 1 other member as a supplier of technical assistance; in addition, the General Conference elects (*e*) 10 members, having due regard to the equitable representation on the Board of those areas listed above (category (*b*)) so that the Board at all times includes in this category a member from each of those areas except North America. Members designated under categories (*d*) and (*e*) (except for 5 members elected to the

first Board) are ineligible for redesignation or reelection in the same category the following year. Each member of the Board has one vote, and decisions are taken by a majority of those present and voting, except for decisions on the Agency's budget which require a two-thirds majority of those present and voting.

ARTICLE VII

The staff of the Agency is to be headed by a Director General appointed for 4 years by the Board of Governors with the approval of the General Conference. He is to be responsible for the appointment, organization, and functioning of the staff, subject to the control of the Board of Governors and in accordance with regulations they adopt. The Agency staff is to be kept to a minimum. In recruiting the staff and determining the conditions of service, the paramount consideration is to be to secure employees of the highest standards of efficiency, technical competence, and integrity. Subject to that consideration, due regard is to be paid to members' contributions to the Agency and to the importance of recruiting staff on as wide a geographical basis as possible.

The Director General and the staff are forbidden to disclose any industrial secret or other confidential information coming to their knowledge by reason of their official duties for the Agency. The international character of the responsibilities of the Director General and the staff are recognized.

ARTICLE VIII

Article VIII of the statute contains provisions for the exchange and dissemination of information relating to the nature and peaceful uses of atomic energy. It provides that each member should make available such information as would, in the judgment of the member, be helpful to the Agency, and requires each member to make available all scientific information acquired as a result of assistance extended by the Agency. The Agency is to make information thus acquired available in accessible form and to encourage the exchange of information among its members. The statute in no way requires a government to transmit classified information.

ARTICLE IX

Provisions governing the supply of special fissionable, source, and other materials by members to the Agency are detailed in article IX. Members are required to notify the Agency annually of the quantities, form, and composition of the materials that they will voluntarily make available to the Agency during the succeeding calendar year. The materials are to be supplied on terms agreed to between the Agency and the members supplying them. The Board of Governors is to determine the use to be made of materials supplied by members, and no member has the right to require the Agency to keep separate the materials that it supplies or to designate the specific project in which they may be used. The materials supplied may, in the discretion of the member supplying them, be stored by that member or by the Agency. The Agency is to be responsible for storing and protecting the materials in its possession, and, to that end, the Agency is required to establish or acquire such facilities (storage, laboratories, housing, etc.), safeguards, and health and safety measures as are necessary.

ARTICLE X

In addition to special fissionable, source, and other materials, members may make available to the Agency services, equipment, and facilities that may be of assistance in carrying out the Agency's projects.

ARTICLE XI

Agency participation in projects for peaceful uses of atomic energy may be requested by any member or group of members. Agency participation takes the form of supplying, or arranging for the supply of, necessary materials, services, equipment, and facilities, as well as assisting in securing financial support from outside sources. A member or group of members requesting the assistance of the Agency is required to submit an explanation of the purpose and extent of the project and, in considering the request, the Agency may send qualified persons into the territory of the member or members making the request to examine the project. The Statute states specific criteria that are to be considered by the Board of Governors before approving a project: (1) usefulness and technical

feasibility; (2) probability of successful completion; (3) adequacy of safeguards; (4) need for Agency assistance; (5) equitable distribution of materials and other resources available to the Agency; (6) special needs of the underdeveloped areas. In addition the Board is directed to consider "such other matters as may be relevant."

If the Board approves a project, an implementing agreement is concluded between the Agency and the member or group of members submitting the project. The statute requires that the agreement shall include provisions covering the following topics: (1) allocation of required special fissionable or other materials to the project; (2) transfer of such materials, under appropriate safeguards, to the member or group of members submitting the project; (3) terms and conditions on which any materials, services, equipment, and facilities are provided to the member or members submitting the project; (4) an undertaking that the assistance provided will not be used to further any military purpose; (5) the relevant safeguards applicable under article XII of the statute; (6) rights and interests of the Agency and of the member or members concerned in any invention or discoveries arising from the project; (7) settlement of disputes; and (8) such other provisions as the Board of Governors considers appropriate.

ARTICLE XII

Article XII, dealing with safeguards, is crucial to the achievement of the Agency's objectives. It was debated at great length in the Conference that drafted the statute. By incorporating article XII in the statute, the Conference gave recognition to the need for safeguards designed to prevent source and fissionable material used or produced in Agency-sponsored projects from being diverted to use for military purposes.

The safeguards are applicable only "to the extent relevant to the project or arrangement" in question. For example, if the Agency were to supply radioisotopes for medical diagnosis, there would be neither occasion nor need for any safeguards other than those relating to the protection of health and safety. The first safeguard specified in article XII (A) gives the Agency the right and the responsibility to "examine the design of specialized equipment and facilities, including nuclear reactors, and to approve it only from the viewpoint of assuring that it will not further any military purpose, that it complies with applicable health and safety standards, and that it will permit effective application of the safeguards provided for in this article." Approval or disapproval of a design on the basis of criteria that are not relevant to the problem of safeguards would be improper under article XII, although it should be pointed out that questions of scientific and technical feasibility, etc., are to be considered by the Board of Governors in approving the project as a whole (art. XI).

The second listed safeguard, requiring observance of health and safety measures prescribed by the Agency, is aimed at the protection of life and property.

The third and fourth listed safeguards, dealing with the making of operating records and progress reports in order to insure accountability for source and special fissionable materials used or produced in Agency products, are necessary to prevent diversion to military purposes as well as to achieve sound management and administration.

The fifth listed safeguard provides that the means used for chemical processing of materials irradiated in an Agency-sponsored project must be approved by the Agency. It is necessary that the Agency have this right, for the dangers to health and safety and the possibility of diversion to military purposes during the chemical processing are great. The Agency is also given the right to require that any special fissionable materials recovered or produced as a byproduct of an Agency-sponsored project be used for peaceful purposes under continuing Agency safeguards or, if such byproducts are in excess of current needs for peaceful purposes, to require that they be deposited with the Agency until such time as the member or members concerned can put them to peaceful uses. These requirements provide the basis for preventing the accumulation by members of stockpiles of special fissionable materials from Agency projects. Such provisions are essential, since a stockpile honestly intended for future peaceful use is indistinguishable from one intended for future military use and could, in fact, be turned to military uses. However, the fact that a nation producing byproduct fissionable materials in an Agency-sponsored project cannot stockpile them itself does not mean that it cannot make full use of them for peaceful purposes at some future time, for the Statute expressly provides that such materials deposited with the Agency shall "at the request of the member or members con-

cerned * * * be returned promptly * * * for use under" continuing Agency safeguards.

The sixth listed safeguard is inspection. After consultation with the state or states concerned, the Agency has the right to send into recipient states inspectors selected in accordance with the standards set forth in article VII. They are to be given access at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment, or facilities which are required by the statute to be safeguarded, as necessary to account for source and fissionable materials and to verify compliance with the applicable health and safety measures, with the undertaking against use in furtherance of any military purpose, and with any other conditions prescribed in the agreement between the Agency and the state or states concerned.

The inspectors are also charged with the responsibility (art. XII (B)) for examining all operations conducted by the Agency itself in order to insure that the Agency's activities, equally with those of the recipient countries, comply with the appropriate health and safety measures and that adequate measures are taken to prevent source and special fissionable materials in the custody of the Agency or used or produced in its operations from being used in furtherance of any military purpose.

Subparagraph C of article XII spells out the procedures by which sanctions are brought to bear in the event of noncompliance with the applicable safeguards and undertakings. The inspectors report noncompliance to the Director General, who in turn transmits the report to the Board of Governors. The Board is required to report the noncompliance to all members of the Agency and to the Security Council and General Assembly of the United Nations. If the recipient state or states fail to take corrective action within a reasonable time, the Board may curtail or suspend Agency assistance and call for the return of materials and equipment made available to the state or states concerned. In accordance with article XIX, the Agency may also suspend any noncomplying member from the exercise of the privileges and rights of membership.

ARTICLE XIII

Article XIII provides that, unless otherwise agreed upon between the Board of Governors and the member furnishing to the Agency materials, services, equipment, or facilities, the Board shall enter into an agreement with such member providing for reimbursement for the items furnished.

ARTICLE XIV

Provisions regarding finance are set forth in article XIV. Annual budget estimates for Agency expenses are to be prepared initially by the Director General and submitted by the Board of Governors to the General Conference for approval. If the General Conference does not approve the estimates, it may make recommendations to the Board so that the latter may submit further estimates.

Administrative expenses of the Agency will include costs of administrative staff, costs of meetings, expenses of preparing Agency projects and distributing information, together with such costs of implementing safeguards and of handling and storing special fissionable material as are not otherwise recoverable. The scale to be used in apportioning administrative expenses among the member states is to be fixed by the General Conference, which is to be guided by the principles followed in assessing contributions of member states to the United Nations budget.

The cost of materials, facilities, plants and equipment furnished by the Agency and expenses (other than administrative expenses) incurred in connection therewith are to be financed through charges. The scale of charges is to be worked out periodically by the Board of Governors. In addition, voluntary contributions received by the Agency may be applied, at the discretion of the Board of Governors, to meet such expenses. A separate fund is to be set up to receive the proceeds of the operational charges assessed against members. Out of this fund, members furnishing materials, services, equipment, or facilities are to be reimbursed and operational expenses of the Agency in connection with these items are to be met.

If the revenues of this type exceed operational expenses and costs, the excess is to be placed in a general fund, together with any unobligated voluntary contributions received by the Agency. The general fund may be used as determined by the Board of Governors, with the approval of the General Conference.

The statute provides also for borrowing powers on the part of the Agency. It makes clear, however, that members of the Agency are not legally or financially liable for repayment of the money borrowed.

A two-thirds majority of those present and voting is required for decisions of the General Conference on financial questions and of the Board of Governors on the amount of the Agency's budget.

ARTICLE XV

Article XV concerns legal capacity, privileges, and immunities to be enjoyed by the Agency in the territory of each member, and the privileges and immunities to be enjoyed by delegates, alternates, advisers, the Director General, and the Agency staff in exercising their official functions. Provision is made for special agreements on this subject between the Agency and its members.

It is anticipated that such privileges and immunities as may be granted in the United States will be pursuant to the International Organizaions Immunities Act (22 U. S. C. 288 et seq.).

ARTICLE XVI

Establishment by special agreement of the relationship between the Agency and the United Nations is provided for by article XVI, with special reference to submission of reports to the United Nations and consideration of United Nations resolutions. The article also anticipates the establishment by special agreement of an appropriate relationship between the Agency and other organizations with related interests.

ARTICLE XVII

Article XVII calls for reference to the International Court of Justice of disputes concerning interpretation or application of the statute, unless the parties concerned agree on another mode of settlement. In addition, the General Conference and the Board of Governors are separately empowered, subject to authorization from the United Nations General Assembly, to request the International Court of Justice to give an advisory opinion on any legal question arising within the scope of the Agency's activities.

ARTICLE XVIII

Amendments to the statute are provided for in article XVIII. Proposals for amendment may be made by any member and will be communicated to all members at least ninety days before being considered by the General Conference. Amendments come into force for all members when they have been approved by the General Conference by a two-thirds majority of those present and voting and have been accepted by two-thirds of all the members in accordance with their respective constitutional processes.

If a member is unwilling to accept an amendment to the statute, it may withdraw from the Agency by notice in writing to the depositary government. In addition, a member may withdraw for any reason at any time after 5 years from the date the statute takes effect. Withdrawal does not relieve a member of its contractual obligations with regard to assistance received from the Agency, or budgetary obligations for the year in which it withdraws.

This article also provides that the question of a general review of the statute is to be placed on the agenda of the fifth annual session of the General Conference. If approved by a majority of members present and voting, the review is to take place at the next General Conference. Thereafter, a proposal for general review may be submitted at any General Conference session.

ARTICLE XIX

If a member of the Agency becomes in arrears in its financial contributions to the Agency in an amount totaling 2 years' contributions, it is to lose its vote in the Agency unless the General Conference is satisfied that failure to pay is due to conditions beyond the member's control (art. XIX).

Persistent violation of the statute or of any agreement made under it may result in suspension of the offending member from privileges and rights of membership. Decisions on suspension are to be made, upon recommendation of the

Board of Governors, by a two-thirds majority of members present and voting in the General Conference.

ARTICLE XX

Article XX defines the terms "special fissionable material," "uranium enriched in the isotopes 235 or 233," and "source material."

ARTICLE XXI

In accordance with article XXI, the statute was opened for signature on October 26, 1956, by states members of the United Nations or of any of the specialized agencies and remained open for 90 days. Ratification by signatory states is called for.

The United States is named depositary Government for receipt of instruments of ratification by signatory states and instruments of acceptance by states approved for membership in conformity with the statute. It is specified that ratification or acceptance by states is to be effected in accordance with constitutional processes.

The statute, apart from its annex, comes into force on deposit of instruments of ratification by 18 states, including 3 of the following: Canada, France, the Union of Soviet Socialist Republics, the United Kingdom, and the United States. The annex, by the terms of article XXI, came into force October 26, 1956, the day on which the statute was opened for signature.

ARTICLE XXII

Article XXII provides for registration of the statute pursuant to article 102 of the United Nations Charter. In addition, agreements between the Agency and any member or members, agreements between the Agency and any other organization or organizations, and agreements between members subject to the approval of the Agency are to be registered with the Agency and, if required by article 102 of the United Nations Charter, are also to be registered with the United Nations.

ARTICLE XXIII

Article XXIII provides for equal authenticity of the five language texts in which the statute is drawn up and for transmittal of certified copies of the statute to the governments concerned.

ANNEX I

The annex to the statute establishes a Preparatory Commission, which is composed of 1 representative each of Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Portugal, Union of South Africa, Union of Soviet Socialist Republics, the United Kingdom, and the United States, and 1 representative each of 6 other states which were chosen by the International Conference on the Statute of the International Atomic Energy Agency (Argentina, Egypt, Indonesia, Japan, Pakistan, and Peru). The Preparatory Commission is to remain in existence until the first General Conference of the Agency is convened and a Board of Governors has been selected in accordance with article VI of the statute. The Commission elects its own officers, adopts its own rules of procedure, establishes such committees as it deems necessary, and determines its place of meeting. It has appointed an Executive Secretary and a small staff in accordance with the provisions of the annex. The expenses of the Commission are being met by a loan negotiated by the Commission with the United Nations. The loan is ultimately to be repaid by the Agency. If the funds from this source should prove insufficient, the Commission is empowered to accept advances from governments; if such advances are made, they may be set off against contributions of the governments concerned to the Agency.

The functions of the Preparatory Commission are (*a*) to make arrangements for the first session of the General Conference of the Agency, including the preparation of a provisional agenda and draft rules of procedure; (*b*) to designate certain members of the first Board of Governors of the Agency in accordance with subparagraphs A–1 and A–2 and paragraph B of article VI of the statute; (*c*) to make studies, reports, and recommendations for the first session of the General Conference and for the Board of Governors on subjects requiring immediate attention, including financing, programs and budget, technical problems relevant to planning Agency operations, establishment of a permanent staff of the Agency, and location of permanent headquarters for the Agency; (*d*) to make recommen-

dations for the first meeting of the Board of Governors concerning the provisions of a headquarters agreement; (*e*) to negotiate with the United Nations regarding a draft agreement to define the relationship between the United Nations and the Agency; and (*f*) to make recommendations concerning the relationship of the Agency to other international organizations.

REPORT BY THE CHAIRMAN OF THE UNITED STATES DELEGATION

Report on the Conference on the Statute of the International Atomic Energy Agency

I. BACKGROUND

A Conference of 81 states and observers from 7 specialized agencies of the United Nations (enclosure 1) met at United Nations Headquarters in New York between September 20 and October 26, 1956, to consider the draft statute of April 18, 1956, for the International Atomic Energy Agency. The Agency was originally proposed by President Eisenhower on December 8, 1953, to foster the peaceful uses of the atom and to provide a positive new approach to the solution of international problems.

The text of the statute debated by the Conference had been drafted and unanimously adopted as a whole by the 12 states sponsoring the Conference (Australia, Belgium, Brazil, Canada, Czechoslovakia, France, India, Portugal, Union of South Africa, Union of Soviet Socialist Republics, United Kingdom, United States) at a Working Level Meeting held in Washington during the winter and spring of 1956.

The United States, acting on behalf of the sponsoring group, invited all 87 members of the United Nations and its specialized agencies to the Conference, one of the largest international gatherings held to date. Previously this community of nations had had an opportunity to review an earlier draft of the statute circulated for comment by the original eight negotiating states (Australia, Belgium, Canada, France, Portugal, Union of South Africa, United Kingdom, United States) on August 22, 1955. The comment received in response was carefully studied by the Working Level Meeting in addition to views expressed on the proposed Agency at the sessions of the General Assembly of the United Nations in 1954 and 1955. Thus prior to the Conference, opportunity had been given to interested countries to have their ideas and suggestions incorporated into the draft statute of April 18, 1956.

II. CONFERENCE ORGANIZATION

(*a*) *Officers and Secretariat*

The two candidates supported by the sponsoring states, Ambassador Muniz of Brazil and Ambassador Winkler of Czechoslovakia, were unanimously elected President and Vice President of the Conference, respectively. Their able and impartial direction contributed much to the success of the Conference. Much credit must also go to the Secretary General of the Conference, Mr. Dag Hammarskjold, his Deputy, Mr. Ralph Bunche, and supporting members of the United Nations Secretariat, who provided the Conference with exceptionally efficient services.

(*b*) *The agenda of the Conference*

The agenda (enclosure 2) was a simple one, the most important item being the discussion of the draft statute of April 18, 1956.

(*c*) *Rules of Procedure*

The Rules of Procedure, based generally on those of the United Nations General Assembly and, therefore, familiar to most of the participants, were originally agreed upon by the sponsoring states and were adopted unchanged (enclosure 3) by the Conference. Rule 26, requiring a two-thirds majority vote on decisions to amend the statute and a simple majority for all other decisions, occasioned some criticism and debate. The rule was defended on the grounds that there should be a presumption in favor of the standing text of the statute, which had been carefully drafted by a representative group and which already reflected views expressed by a large number of interested countries.

(d) Conference Proceedings

In accordance with the Rules of Procedure, amendments to the statute could be submitted up through midnight of October 2, unless the Conference decided otherwise. Since it would not have been practical to consider specific articles of the statute until all amendments had been submitted, during the first 8 working days (September 20 to October 2) the Conference met in 13 plenary sessions in the General Assembly Hall of the United Nations to debate the status as a whole Representatives of 63 countries took advantage of this opportunity to express their general views on the statute and the Agency.

Between October 3 and October 22, the Conference met in Conference Room 4 in 24 sessions as a Main Committee (equivalent of Committee of the Whole) in which all states attending the Conference participated. During this time, the statute was considered article by article, either in terms of amendments to articles or requests for clarification in cases of articles to which there were no amendments. With reference to more controversial articles, such as articles III and XII, there were first and second readings but in most instances the articles were voted upon after one reading.

Some 80 amendments were submitted to all but 6 (art. I, VIII, XIII, XVI, XIX, and XXIII) of the articles. Of the approximately 60 amendments voted upon, one-half were adopted by the Conference, evidence of the fact that the Conference was not of a "rubber stamp" nature.

The Coordination Committee, consisting of the 12 sponsoring states, was the only other Conference Committee. The main work of the Committee was to review amendments approved by the Conference and the statute as a whole in order to correct drafting errors and eliminate inconsistencies in terminology. The Committee accomplished its review between October 20 and October 22.

III. MAJOR CONFERENCE ISSUES

(a) Agency functions

The largest number of amendments was submitted to article III, which outlines general Agency functions. The basic problem in this connection was to determine to what extent authority for specific activities should be spelled out in a broad constitutional document such as the statute or be left to the discretion of the Board of Governors and the General Conference after the establishment of the Agency. Amendments authorizing the Agency to engage in projects such as sponsoring international technical conferences, publishing an international periodical, and establishing a world atomic university, were finally withdrawn after their sponsors were persuaded that a legislative record had been made for these activities which the Agency could undertake under the wide grant of authority contained in the Statute if it so desired later on.

Specific authorization, however, for the Agency to encourage the training of scientists and experts in the field of peaceful uses of atomic energy was incorporated into the statute. Atomically less advanced countries were particularly anxious that this Agency activity of special usefulness to them should be explicitly covered by the statute.

The most important amendment to article III adopted by the Conference gives the Agency enabling authority to apply its safeguard system upon request of a member state to the atomic energy activities of that state. The Agency would thus be in a position to apply its safeguards universally in the event of future agreement among countries with atomic weapon programs to safeguard their atomic energy activities against diversion to military purposes. The inclusion of this objective as a possible Agency activity helped ameliorate the fact that for the time being safeguards will be applied only to countries requesting and receiving assistance.

(b) Composition of Board of Governors

Considerable criticism developed of the composition of the Board of Governors (art. VI) in which the atomically advanced countries would have the dominant position. The 12 sponsoring powers, however, maintained a united front against any change on the grounds that the present formula was the most equitable and practical solution that could be attained after long and arduous negotiations of the Working Level Meeting. They stated that in such a compromise formula, even a small change could not be made without impairing the whole structure. To attempt such changes could set off a chain reaction which would delay or even frustrate the establishment of the Agency. Although the present formula might not be perfect, they pointed out that it did provide for wide representation

both in terms of geographic areas and of countries that would be the recipients of Agency assistance.

After a useful debate in which issues were clarified and assurances given on points not actually written into the Statute (such as support for two seats for Latin America and one seat for Africa and the Middle East from among the three elected but geographically unassigned seats under Paragraph A–3 of Article VI), the formula for the Board's composition was approved unchanged.

(c) Relationship of the Board of Governors to the General Conference

There was also initial criticism of the limited authority which the General Conference, representing the total membership of the Agency, had in relation to the more complete powers of the Board of Governors. This criticism was met by amendments clarifying and increasing the authority of the General Conference without, however, upsetting the balance of power between the Conference and the Board of Governors necessary for efficient operations of an essentially technical agency. For example, language based on article X of the United Nations Charter containing a more clearly defined and comprehensive grant of authority to the General Conference was adopted; authority for making decisions referred to the General Conference for that purpose by the Board of Governors was spelled out; appointment by the Board of the Director General was made subject to the approval of the General Conference, etc. Criticism was thus mollified and the structural balance between the General Conference and the Board of Governors maintained.

(d) Safeguard provisions

The extent and depth of the safeguard system contained in article XII of the draft statute proved the most controversial issue of the Conference. Two joint amendments submitted by Ceylon, Egypt, India, and Indonesia struck at the heart of the safeguard system. One would have removed source materials from Agency accountability (art. XII A–3); the other would have crippled Agency ability to prevent the accumulation of national stockpiles of weapon-grade fissionable materials produced as byproducts in Agency assisted projects (art. XII A–5). The sponsors claimed this curtailment of Agency authority in applying safeguards was necessary to prevent burdensome, unnecessary and possibly dangerous interference by the Agency in the economic growth of member states, especially the poor and undeveloped members most in need of Agency assistance. The U. S. S. R. supported these amendments, alleging that safeguard provisions as they stood were uncalled for in the absence of agreement on the abolition of nuclear weapons and that these provisions constituted an invasion of sovereign rights.

Following an extensive debate that revealed misconceptions and fears arising from some ambiguity in the language of the draft statute on the issues concerned, Canada, the United Kingdom, and the United States introduced 2 clarifying and qualifying amendments: 1 clearly limiting accountability for source materials to those used or produced in Agency projects and the other making it explicit that in deciding upon retention by member states of byproduct fissionable materials or their deposit with the Agency, the Agency should be guided by only two criteria—whether the materials were to be used for peaceful purposes and in such a way as not to endanger health and safety. These amendments had the effect of removing any possibility that the Agency would seek to judge the economic merit or technical feasibility of projects or programs when reaching decisions concerning the retention of byproduct fissionable materials.

Agreement of India and her cosponsoring states after further negotiations was finally obtained to the Canadian, United Kingdom, and United States amendment on source materials and to a mutually acceptable Franco-Swiss amendment further clarifying and defining Agency rights and objectives regarding the deposit of byproduct fissionable materials to prevent national stockpiling. In both instances, therefore, the basic principles were retained but were couched in new language aimed at dispelling fears that Agency authority would be greater than required to discharge its responsibilities and would be used to interfere beyond its competence in domestic arrangements of member states.

The adoption of a number of Swiss amendments delineating more specifically the Agency's inspection rights (art. XII A–6) also helped to allay misgivings, both among the underdeveloped countries and certain countries of Western Europe. In this connection, it was pointed out that the more technically advanced countries in Western Europe and elsewhere would be the first with pro-

grams requiring more comprehensive type safeguards. Hence underdeveloped countries would have an opportunity to observe the effect of the application of such safeguards before having to experience them.

As the result of willingness on both sides to discuss and negotiate original differences, agreement was thus achieved on unimpaired and textually improved safeguard provisions, which were unanimously approved by the Conference.

(e) Finances

Considerable concern was expressed by the underdeveloped countries as to their ability to finance atomic development programs. Hope was expressed that the Agency would either grant financial assistance to poorer countries or make services and materials available free of charge. On the other hand, there was a general desire to avoid making Agency membership too costly. The principle of article XIV (finance) was successfully maintained that the Agency should be operated on a nonprofit businesslike business and should not engage in financing operations. An amendment to article IX sponsired by the Latin American countries was adopted, however, by which the Agency would lend its good offices in assisting members in securing the necessary financing of desired projects from sources outside the Agency. It was the understanding of the Conference that the Agency would not assume responsibility for any such financial arrangements.

In the debate it was pointed out that the Agency would have discretion to take into consideration the financial position of countries in fixing the scale of charges for Agency assistance. Clarifying amendments were also adopted concerning the Agency's authority to accept voluntary contributions and applying the proceeds to reduce the scale of charges.

An attempt by the U. S. S. R. to eliminate the Agency's borrowing authority and restrict the financing of Agency facilities to voluntary contributions, the effect of which would have been seriously to hamper the future development of the Agency, was defeated by a substantial majority.

(f) Definitions

France, supported by India, attempted to incorporate a definition of military purposes in article XX, but withdrew its amendment to this article when the seeming impossibility of finding satisfactory language became apparent. The French delegation, however, wished its understanding included in the record that the Agency should not refuse assistance in the peaceful uses of atomic propulsion solely on the grounds that such propulsion could also be used for military purposes.

(g) Chinese representation and Agency membership

Both at the opening of the Conference and during the discussion of the Secretary General's report on credentials, the U. S. S. R. injected the Chinese representation issue but with fruitless results. The great majority of the delegations believed that the Conference should not be used as a forum for vituperative substantive debate on this issue.

The U. S. S. R. was equally unsuccessful in its attempt to delete membership in the United Nations or its specialized agencies as a requirement for initial Agency membership.

(h) Sovereign rights

The U. S. S. R. did not itself introduce an amendment regarding sovereign rights as it indicated it would do at the Working Level Meeting. It did, however, attempt to make ideological capital from this issue, especially with reference to safeguards. Although solicitude for sovereign rights would naturally have especial appeal to the large number of newly independent countries at the Conference, manipulation of this issue did not strike a responsive chord. Thus a Polish amendment to article III D, as a result of which the issue of protection of sovereign rights could have been pleaded as an excuse for avoiding legitimate Agency obligations, was decisively defeated.

(i) Preparatory Commission

Annex I of the draft statute provided for a Preparatory Commission, composed of the 12 nations which had drafted the statute plus 6 elected members, to come into being on the day the statute was opened for signature and charged with responsibility to arrange for the first General Conference of the Agency and to make designations to the first Board of Governors. An amendment expanding the Commission's activities to include organizational and operational plan-

ning was adopted by the Conference as a means of expediting the establishment of the Agency. This amendment was introduced by all of the sponsoring states except Czechoslovakia, India, and the U. S. S. R. While the latter supported the substance of the amendment, they did not join in introducing it because of the opposition of the other sponsoring states to a U. S. S. R. amendment to increase the number of elected members on the Commission from 6 to 7. The object of the Soviet amendment was to obtain another seat for Eastern Europe on the Commission. The other sponsoring states firmly opposed the Soviet move on the grounds that two seats for Eastern Europe were adequate representation and that to start increasing the number of elected seats might result in endless election difficulties and an oversized Commission. The United States proposed that no European country should have any of the six seats, which, to ensure equitable representation, should be divided among the Latin American and Afro-Asian areas exclusively. A last minute Syrian amendment, supported by the U. S. S. R., for increasing the number of elected states to nine, was defeated. The present Commission is thus a reasonably sized body of 18 members, representing all area of the world.

IV. FINAL ACTS OF THE CONFERENCE

On October 23, the Conference, reconvening in plenary session, approved the Coordination Committee's report recommending the draft statute and then unanimously adopted the statute by a standing vote of approval.

At this same session, the Conference also elected Argentina, Egypt, Indonesia, Japan, Pakistan, and Peru as members of the Preparatory Commission, and passed a resolution recommending the establishment of the Agency headquarters in Vienna.

V. THE SIGNING OF THE STATUTE AND CLOSING SESSION OF THE CONFERENCE

The Conference opened its 16th and final plenary session on October 26, 1956, with a message to the Conference from President Eisenhower read by the Chairman of the United States Atomic Energy Commission, Admiral Strauss. In this message it was announced that the United States will make available to the Agency, on terms to be agreed upon with that body, 5,000 kilograms of a nuclear fuel uranium–235, and would make available additional amounts to match the sum of all quantities of such materials made similarly available by all other Agency members, and on comparable terms, for the period between the establishment of the Agency and July 1, 1960. Substantial initial support for the Agency is thus assured. The statement was regarded as tangible proof of the United States willingness to support the Agency based on the statute as adopted.

To date, representatives of 71 countries have signed this new instrument of peace. The statute has thus been signed by all but 16 of the 87 countries eligible for initial membership and will come into force when ratified by 18 countries, which must include 3 from the following: Canada, France, United Kingdom, U. S. S. R., and the United States.

In a closing address, the President of the Conference, Ambassador Muniz, eloquently summed up the significance of the accomplishments of the Conference. The Secretary General of the Conference, Mr. Hammarskjold, presented Ambassador Muniz with the Conference gavel in recognition of his services. The President then declared closed the Conference on the Statute of the International Atomic Energy Agency.

VI. UNITED STATES PARTICIPATION AT THE CONFERENCE

(a) United States preparations for the Conference

The United States played a leading role in drafting the report of the Working Level Meeting, which was sent as an enclosure to the invitations to the Conference, and which contained the provisional agenda and rules of procedure for the Conference. The United States also worked patiently and diligently in arriving at a formula by which the United States could issue the invitations to the Conference in the name of all 12 members of the sponsoring group. The position taken by the U. S. S. R. in particular, regarding invitations to China, Korea, Vietnam, and Germany, made this a thorny negotiating problem.

During the summer and early fall, the United States both through approaches at capitals and through extensive consultations with foreign representatives in Washington and New York, briefed countries invited to the Conference on

the position of the United States intended to take on the statute. The main points which the United States sought to make were:

1. The draft statute as it stood was acceptable to the United States, which was prepared to give wholehearted support to an Agency based on such a statute.

2. While the United States would sympathetically consider amendments which would improve the statute, it would oppose amendments based on reservations made at the Working Level Meeting as contained in the report of that meeting.

(*b*) *United States representation at the Conference*

Ambassador James J. Wadsworth, deputy United States representative to the United Nations, was the United States representative and chairman of the delegation (see enclosure 4 for delegation list), consisting of four congressional advisers (Senators John O. Pastore and John W. Bricker, and Representatives W. Sterling Cole and Paul J. Kilday) and a larger number of political and technical advisers from the Department of State and the Atomic Energy Commission.

(*c*) *United States Conference objectives and achievements*

The basic United States objective was to obtain the adoption of the draft statute without substantial alteration and with the widest possible international support so as to encourage maximum membership and participation among the 87 countries eligible for initial membership. With the unanimous adoption by the Conference of an improved but basically unaltered text of the statute, this United States objective was fully attained. In achieving it, the United States followed a flexible approach based on willingness to negotiate differences or to explain and clarify issues on which it was necessary to remain firm. The success of this policy is attested to by the fact that the resulting statute not only enjoyed the broadest international approval but also should make possible the establishment and operation of an Agency that the United States can generously support on a continuing basis.

More specifically, the statute contains all those features which the United States worked to include. Functionally, it will make possible an Agency with broad authority to assist in research and development in the peaceful uses field; possess and distribute nuclear materials; carry out the pooling of such materials at the request of member states as proposed by the President; establish and operate its own facilities; organize and apply a system of minimum safeguards in the interest of health, safety, and international security; apply such safeguards on request to bilateral or multilateral arrangements or the atomic energy activities of a member state; conduct its financial management on a flexible but business-like basis in the interest of the entire membership; establish an appropriate relationship with the United Nations and other international organizations; and take into consideration recognized standards of international conduct in connection with the admission of new members. Organizationally, the statute should make possible an Agency with a technically competent but broadly representative Board of Governors responsible for the managerial operations of the Agency and responsive to the General Conference, through which the Agency membership as a whole will be able to speak in connection with the formulation of broad Agency policy.

The unusually cooperative and harmonious atmosphere of the Conference, which made these achievements possible, gives substance to President Eisenhower's hope that the Agency will provide a new and promising avenue to the solution of international problems. The success of the Conference would thus seem to assure the swift translation of the President's Agency proposal from a hopeful idea to a useful, working reality.

DECEMBER 6, 1956.

[Enclosures not transmitted]

REPUBLICA DE VENEZUELA

DELEGACION A LA NACIONES UNIDAS

NUEVA YORK, *25 de octubre de 1956*

Excelentísimo Señor Presidente:

Tengo a honra llevar a conocimiento de Vuestra Excelencia que, de acuerdo con las instrucciones que he recibido del Gobierno de Venezuela, la Delegación que presido, ha sido autorizada para firmar el Estatuto del Organismo Internacional de Engergía Atómica, dejando constancia textual de la siguiente declaración:

"La Delegación de Venezuela firma *ad referendum* el presente Estatuto en la inteligencia de que:

1) En cuanto al articulo XVII° del mismo, la firma o ratificación del presente Instrumento por parte de Venezuela no implica por ésta aceptación de la jurisdición de la Corte Internacional de Justicia sin su consentimiento expreso en cada caso.

2) Que ninguna modificación del presente Instrumento, a que se refiere el párrafo *C* del artículo XVIII°, podrá ser considerada en vigor por Venezuela, sin el previo cumplimiento de sus disposiciones Constitucionales acerca de ratificación y depósito de tratados públicos."

Asimismo, me es grato confirmar a Vuestra Excelencia que han sido authorizados para firmar el referido Estatuto los siguientes miembros de la Delegación: el que suscribe, el Doctor Francisco Alfonzo Ravard y el Doctor Marcel Granier.

Válgome de esta oportunidad para reiterar a Vuestra Excelencia el testimonio de mi más alta consideración.

Humberto Fernández-Morán,
DR. HUMBERTO FERNÁNDEZ-MORÁN,

Presidente de la Delegación de Venezuela a la Conferencia sobre el Estatuto del Organismo Internacional de Energia Atómica.

Al Excelentísimo Señor JOAO CARLOS MUNIZ
Presidente de la Conferencia sobre el Estatuto del Organismo Internacional de Energía Atómica
Presente

Translation
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REPUBLIC OF VENEZUELA

DELEGATION TO THE UNITED NATIONS

NEW YORK, *25 October 1956*

SIR,

I have the honour to inform you that in accordance with instructions I have received from the Venezuelan Government my delegation has been authorized to sign the Statute of the International Atomic Energy Agency, subject to the terms of the following declaration:

"The Delegation of Venezuela signs the present Statute *ad referendum* and on the understanding that:

1) As regards article XVII, the signing or ratification of this Instrument by Venezuela does not imply Venezuela's acceptance of the jurisdiction of the International Court of Justice without its express consent in each individual case;

2) No amendment to this Instrument under paragraph C of article XVIII shall be regarded by Venezuela as operative until its constitutional provisions concerning the ratification and deposit of public treaties have been complied with."

I also have the honour to confirm that the following members of my delegation have been authorized to sign the aforesaid Statute: the undersigned, Dr. Francisco Alfonzo Ravard and Dr. Marcel Granier.

I have the honour to be, Sir, etc.,

(signed) HUMBERTO FERNÁNDEZ-MORÁN
Chairman of the Venezuelan Delegation to the Conference on the Statute of the International Atomic Energy Agency.

His Excellency Mr. JOAO CARLOS MUNIZ,
President of the Conference on the Statute of the International Atomic Energy Agency.

IS TREATY SELF-EXECUTING?

Senator HICKENLOOPER. Mr. Secretary, is this treaty a self-executing treaty or does its implementation, so far as the United States is concerned, have to come to the Congress for authorization of the details and the activities?

Secretary DULLES. There would be required, as I understand it, an implementing act just as there was in the case of the United Nations. Where you have United Nations Participation Act you would have to have an International Atomic Energy Agency Participation Act.

Senator HICKENLOOPER. So it would require, in your view, legislation which would in a measure or in detail spell out the lengths to which we could go in participating in this international statute?

Secretary DULLES. The participation act would deal with the machinery and procedures primarily.

As far as the extent of participation, if you are referring to such matters as the amount of atomic materials that might be made available and so forth, that is not now subject to any legislative restrictions. We do not expect to ask that it should be made so, although of course it would be entirely possible for the Congress, if it so desired, to impose restrictions.

COST OF THE PROGRAM

Senator HICKENLOOPER. In your statement you said that the anticipated expenses of the Agency for the first year of operation would not be expected to exceed $6 million.

The Atomic Energy Commission has, I think, announced the price of $16 a gram for 20 percent enriched uranium 235, which is at least the original proposal for enrichment of materials made available to this Agency.

The proposal of the President is to make available to the Agency, initially, 5,000 kilograms. That, as I figure it, is 5 million grams, which would be $80 million worth of material at $16 a gram. That would be a part of the cost of the Agency, in addition to the $7 million in expenses; would it not?

QUESTION OF PAYMENT BY RECIPIENT COUNTRIES

Secretary DULLES. No, sir; because the recipients would have to pay that.

Senator HICKENLOOPER. Where would the recipients get the money to pay for it?

That is based on the idea that this treaty, as I read it, emphasizes and reemphasizes the fact that these facilities are to be put into and used by underprivileged countries. Where would they get the money to pay for this?

Secretary DULLES. A good many of these countries that will use it have got the money to put in a project which would save them a great deal of foreign exchange which they otherwise pay.

There are a number of countries in the world, I prefer not to call them by name, which are very short of fuel oil, for example, and the procurement of this involves a very heavy drain upon their foreign exchange.

If, by establishing one of these plants, they can effect a considerable net saving in foreign exchange, they can find the money to pay for it out of the savings.

Senator HICKENLOOPER. I think it is a very important thing to consider, because if we are favoring underdeveloped nations, the very fact that they are underdeveloped means that they do not have the money to develop themselves, and this is a costly program.

In other words, I am only probing to see whether in the last analysis the United States will not again be called upon to finance this venture.

Secretary DULLES. There is certainly nothing in this statute which directly or indirectly, explicitly or by implication, commits the United States to financing the venture.

On the contrary, it is explicitly pointed out that the recipient countries will have to pay. We already have made on a provisional basis, as you know, bilateral arrangements involving certain amounts of this material with a number of other countries, I think, including experimental reactors.

EXISTING ATOMIC ENERGY BILATERAL AGREEMENTS

Senator HICKENLOOPER. There are some 40 countries, are there not, with whom we have arrangements at the present time?

Secretary DULLES. We have already agreed to the establishment of an atomic energy center at Manila as part of the Far Eastern development program; and the pressures to do this are going to exist whether or not we have the agency. The Agency is going to be a means whereby we hope that at least some of the burden of this will be shifted elsewhere. And above all, where there will be a uniform system of inspection and control which will make it safer to do these things.

But the pressure on the United States to supply atomic material for power purposes is a fact of life which exists and which is not going to be increased in any way, in my opinion, by this agency.

(The Atomic Energy Commission subsequently supplied the following report:)

Status of cooperation with foreign nations in peaceful uses of atomic energy [1]

Country	Agreements in effect		Agreements pending	
	Type	Effective date	Negotiations concluded	Interest indicated
1. Argentina	Research	July 29, 1955		Power.
2. Australia			Power	
3. Austria	Research	July 13, 1956		
4. Belgium	Power	July 21, 1955		
5. Brazil	Research	Aug. 3, 1955		Do.
6. Canada	Power	July 21, 1955		
7. Ceylon				Research.
8. Chile	Research	Aug. 8, 1955		
9. China, Republic of	do	July 18, 1955		
10. Colombia	do	July 19, 1955		
11. Costa Rica			Research	
12. Cuba			do	Power.
13. Denmark	Research	July 25, 1955		
14. Dominican Republic	do	Dec. 21, 1956		
15. Ecuador			Research	
16. France	Research and power	Nov. 20, 1956		Do.
17. Germany, Federal Republic of.	Research	Apr. 23, 1956		
18. Greece	do	Aug. 4, 1955		Do.
19. Guatemala	do	Apr. 22, 1957		
20. Haiti				Research.
21. India				Power.
22. Iran			Research	
23. Iraq			do	
24. Ireland			do	
25. Israel	Research	July 12, 1955		Do.
26. Italy	do	July 28, 1955		Do.
27. Japan	do	Dec. 27, 1955		Do.
28. Korea	do	Feb. 3, 1956		
29. Lebanon	do	July 18, 1955		
30. Liberia				Research.
31. Netherlands	Research	Dec. 30, 1955	Power	
32. New Zealand	do	Aug. 29, 1956		
33. Nicaragua			Research	
34. Norway			Power	
35. Pakistan	Research	Aug. 11, 1955		Power.
36. Peru	do	Jan. 25, 1956		Do.
37. Philippines	do	July 27, 1955		Do.
38. Portugal	do	July 21, 1955		
39. South Africa				Research and power.
40. Spain	Research	July 19, 1955		Power.
41. Sweden	do	Jan. 18, 1956		Do.
42. Switzerland	Research and power	July 18, 1955 Jan. 29, 1957		
43. Thailand	Research	Mar. 13, 1956		
44. Tunisia				Research and power.
45. Turkey	Research	June 10, 1955		
46. United Kingdom	Power	July 21, 1955		
47. Uruguay	Research	Jan. 13, 1956		Power.
48. Venezuela	do	July 21, 1955		

[1] Out of discussions with 48 nations, negotiations have been concluded to date for 44 agreements for cooperation (42 nations); 34 of these agreements are in force (29 research and 5 power). The remaining 10 agreements await completion of constitutional or statutory procedures.

MAY 14, 1957.

MEANING OF "SUCH TERMS" IN ARTICLE IX

Senator HICKENLOOPER. Mr. Chairman, I would like to ask the Department to furnish the record of the discussions, when the treaty was being formulated, as to what the phrase "such terms" means in paragraph (A) of article IX.

It is my understanding that the word "terms" in the discussion and in the history of this treaty refers to the question of price, and does not refer to the question of the utility of the material after it becomes available to the agency.

I would like to have that matter cleared up.

Secretary DULLES. I am sure that Ambassador Wadsworth would be able to testify to that.

(The following letter, dated May 15, was subsequently received from the Department of State:)

MAY 15, 1957.

Mr. CARL MARCY,
Chief of Staff, Committee on Foreign Relations,
United States Senate.

DEAR MR. MARCY: During the appearance of the Secretary of State before the Senate Foreign Relations Committee on May 10 on behalf of the Statute of the International Atomic Energy Agency, Senator Hickenlooper asked the Department of State to furnish a record of the discussions which resulted in the phrase "such terms" in paragraph A of article IX of the treaty.

This draft of the pertinent part of this paragraph as submitted by the United States at the beginning of the 12-nation negotiating group in February 1956 read "Subject to the provisions of Article XV [this deals with reimbursement of suppliers], the Members may contribute to the Agency such quantities of fissionable materials as they deem advisable." The United Kingdom delegation offered an amendment that members should "make available" rather than contribute special fissionable materials to the Agency "on such terms as shall be agreed with the Agency." This was unanimously adopted and became what is now the existing language. No further efforts were made to alter this formula at the 81-nation conference in New York the following autumn. The article was unanimously adopted there on October 11.

Senator Hickenlooper stated his understanding that the word "terms" referred to the question of price, and did not refer to the question of utility of the material after it became available to the Agency. This corresponds essentially to our understanding, although the terms could also include such details as transportation, insurance, safekeeping, etc.

The statute provides in paragraph C of article IX that the supplier shall notify the Agency of the form and composition of material it makes available, factors which should apply more directly to the utility of the material.

Senator Mansfield also inquired as to how the contractual basis of United Nations action would operate to insure against misuse of atomic materials. The Secretary understood this to relate to the applicability of U. N. sanctions against offenders, and undertook to furnish an answer for the record. (See p. 71.)

The measures that the Agency itself could take in the event of violation of the statute are termination of assistance, withdrawal of materials and equipment, and suspension or expulsion from membership.

In addition, the statute provides that the Board shall report noncompliance to all members and to the Security Council and General Assembly of the United Nations. If the violation was considered to constitute a threat to international peace and security, the matter could be brought by any state to the attention of the Security Council, which could take any action open to it under the U. N. Charter. If action were frustrated by the negative vote of any permanent member, the matter could be brought to the General Assembly for discussion and recommendation under the "Uniting for Peace" resolution.

Neither the Security Council nor the General Assembly could reverse any preventive or corrective action previously taken by the Agency itself.

Sincerely yours,

ROBERT C. HILL,
Assistant Secretary.

QUESTIONS SUBMITTED TO DEPARTMENT OF STATE

Senator HICKENLOOPER. Mr. Chairman, I have submitted 48 questions touching this treaty to the State Department. They have supplied me with answers to those questions which I will canvass at a later date. Manifestly I cannot canvass the 48 questions in 6 minutes. Later I will have an extensive number of questions with which I hope to probe this treaty, because I think there is some reasonable doubt in

the minds of many people as to the implications of what this treaty may do.

I don't necessarily share those doubts, nor do I discard them, but I think this is a very far-reaching, important treaty. I think it must have a thorough probing so that, whatever position any Member may take on the treaty, he shall be fully satisfied by adequate explanation.

And so with this one comment, I shall conclude my questioning. I presume my time is about up.

RUSSIA'S OFFER OF 50 KILOGRAMS

With respect to the publicity which has been given repeatedly, and sometimes rather emotionally, that Russia has rushed in and signed this treaty and thereby put us behind the eight ball, I call to the attention of the Committee that it is my information, and I think this is correct, that with all the fanfare of Russia's signing, after a couple of years of attempting to block this thing, Russia only offered 50 kilograms. Is that correct?

Secretary DULLES. Yes, 50 is the correct figure.

Senator HICKENLOOPER. As compared to the 5,000 which we offered, and Great Britain I believe offered some, a lesser amount than that, 20 kilograms, I believe.

Secretary DULLES. At the time when those offers of the Soviet Union and United Kingdom were made, our offer was only 100, so the ratio which was established at that time was 100 for the United States, 50 for the Soviet Union, and 20 for the United Kingdom.

Whether that ratio will be perpetuated or not, I do not know.

Senator HICKENLOOPER. But the significant fact is that the Soviet Union has not increased its offer or its proposition over and above the 50 kilograms, at least at this moment?

Secretary DULLES. Not yet.

Senator HICKENLOOPER. Is that correct?

Secretary DULLES. That is correct.

Senator HICKENLOOPER. I will desist at this time, Mr. Chairman.

(The following questions and answers were submitted for the record:)

REPLIES TO QUESTIONS SUBMITTED BY SENATOR HICKENLOOPER TO THE DEPARTMENT OF STATE WITH RESPECT TO THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

1. Article IV, B, of the International Atomic Energy Agency statute refers to future membership of states not now members of the United Nations. To what Communist and what non-Communist nations could this section possible refer?

The only states which are not now members of the United Nations or any of the specialized agencies are Outer Mongolia, East Germany, North Korea, and North Vietnam. Ghana was not a member of the United Nations when the statute was signed, and thus not eligible for initial membership. Presumably as other new states become independent they will wish to apply for membership in the IAEA. Other states which did not sign the statute although they are presently members of the United Nations, such as Finland, Jordan, Saudia Arabia, Yemen, Ireland, and Nepal, will also now qualify for membership under Article XIV–B.

2. If the United States does not join this International agency and does not make fissionable material available to Communist countries, is there any substantial evidence that the U. S. S. R. will contribute substantial amounts?

The Soviet Union in a note dated July 18, 1955, pledged to contribute 50 kilograms of uranium 235 to the Agency. At that time the United States had in-

dicated a contribution of 100 kilograms. Since then the United States has announced an increase in the amount it has offered to make available to 5,000 kilograms and a matching of all other contributions until the year 1960. It is expected that the U. S. S. R. will also increase to some extent the amount it will make available since it is unlikely that the U. S. S. R. would be content to let the United States exercise sole leadership in the "Atoms-for-Peace" field. There is no "substantial evidence" that the U. S. S. R. would contribute substantial amounts to the Agency if the United States does not join, but the advantage to them in seizing world leadership in the field of peaceful uses of atomic energy would offer them a strong inducement to make such contributions.

3. Since the United States is the only nation, with significant quantities of fissionable material, which has indicated, through the President, its willingness to make significant amounts of such material available to the Agency, what would be the effect on the Agency if the United States did not join?

Should the United States, with its commanding resources, its technical leadership and its record of initiative, fail to join the Agency, it is doubtful that the Agency could play an important role. It is also possible that the conditions of article XXI, paragraph E of the statute would not be met. This provision requires ratification by three of the following states: Canada, France, U. S. S. R., United States and United Kingdom before the statute shall come into force. It is not certain that three of these nations will join the Agency if the United States does not do so.

4. Has any nation, either before or after joining in the treaty, made any firm commitments to make available significant amounts of fissionable material to the Agency? If any nations have, what are the nations and how much are the commitments of each.

On July 18, 1955, the U. S. S. R. offered to deposit 50 kilograms of *fissionable material* with the Agency, and the United Kingdom three years ago offered 20 kilograms. Subsequently, the United States offered to make available to the IAEA, on terms and conditions to be agreed, 5,000 kilograms which is the largest quantity yet offered to the Agency. Thus all nations in a position to offer fissionable material to the Agency have done so.

It is anticipated that several other nations will make offers of *natural uranium.*

5. What is the status of the situation of the United States insofar as the signing, execution, or any binding participation in the treaty is concerned at this time? Is the United States a member of the Agency at this time?

The United States is not a member of the Agency at the present time.

The United States and 79 other nations have signed the IAEA statute. Signature alone is of no binding effect. Under the terms of the statute (art. XXI, par. B), deposit of an instrument of ratification is required before a signatory state becomes a party to the statute.

6. Since the United States, Canada, Great Britain, and the Soviet Union are the only nations presently capable of producing significant amounts of fissionable material, and since there might be 76 or more members of the Agency who do not possess such capabilities, would there be any way possible that the "have not" nations could requisition atomic material from the "have" nations without the consent of the nation involved?

No. The provisions of article IX (A) and (C) make it clear that no member of the Agency will be obliged to furnish it with any fissionable materials. Such materials will be supplied to the Agency only with the consent of the supplier and "in conformity with its laws."

7. What is considered a state under article IV, B? For instance, Red China has not been recognized by the United States and many other countries but has been recognized by a substantial number of countries. Does Red China constitute a state which could be admitted to membership under article IV, B?

Under any accepted definition in international law, "China" is a state. The United States, and the majority of other countries in the world, recognize the Government of the Republic of China as the legitimate government of China. Others recognize the Communist Chinese (Government of the Peoples Republic of China) as the legitimate government.

The problem of Red China and its participation in the Agency is one of representation and not of membership. It is unlikely that the Red Chinese regime would apply for membership, since it is certain that the Republic of

China would already have adhered to the Agency statute and to apply would constitute an acceptance by the Red regime of a "Two-China" concept.

If Red China did apply for membership, the United States would, of course, vigorously oppose acceptance of its application and would no doubt be successful.

The credentials of the representatives of the Republic of China, the government which will have signed and ratified the statute, will no doubt be challenged by members of the Communist bloc or others. Our experience in the U. N. system affords evidence that we will defeat this challenge.

8. Does the statute create an autonomous internationl Agency independent of the United Nations supervision, control, or jurisdiction? What is the analysis of this situation?

The IAEA will be independent of the United Nations supervision, control, or jurisdiction. It will be brought into relationship with the United Nations in accordance with an agreement as envisaged in article XVI of the statute. This agreement will, inter alia, call upon the Agency to submit reports to the United Nations and to consider resolutions relating to its work which might be adopted by the United Nations. The Agency will not be required, however, to abide by these resolutions or to carry out any directives from the United Nations.

9. Since the present and potential possibilities of atomic energy are so vast, what are the prospects that an autonomous international Agency will overshadow and perhaps supplant the United Nations in importance, prestige and functions?

The Agency is concerned with the field of atomic energy and has no competence in the many political and economic areas in which the U. N. is assigned responsibilities. Thus, the Agency and the U. N. are complementary rather than competing organizations. In view of the important and varied activities for which the U. N. is responsible, as compared with the single field of even so significant an activity as atomic energy, the prospect that the Agency will overshadow or supplant the United Nations is negligible.

10. Does the statute provide, for instance, that Red China could become a member of the Agency by the vote of a simple majority of the Board of Governors and of the General Conference?

It is unlikely, as explained in reply to question 7, that Red China would apply for membership in the Agency, although it is expected that certain states will continue their efforts to have representatives of this regime seated in place of the representatives of the Republic of China. The vote required on such a question will depend upon the rules of procedure adopted by the General Conference of the Agency. It should be noted in this connection that whereas a requirement of a two-thirds majority would facilitate the rejection of any move to seat representatives of the Communist regime, it would, on the other hand, make it more difficult to approve the credentials of representatives of the Republic of China if they are challenged. Whether the majority required to recognize the credentials of the present representatives of China is determined to be a simple majority or two-thirds, the United States does not anticipate the seating of the Red Chinese.

The United States successfully defeated past efforts to seat Red China during the negotiation and there is no reason to doubt that any future attempts will be similarly defeated.

It might be noted that the prospective membership of the Agency will not differ substantially from that of the 11th General Assembly of the U. N. which in November of last year voted by a large majority, 47 to 24 with 8 abstentions, to support a United States proposal not to consider any proposal to seat representaties of Communist China or to unseat representatives of the Republic of China.

11. Some 80 nations are reported to have signed the International Atomic Energy statute. If the United States joined, does this mean that we would have just 1 vote among the 80 in the General Conference, and depending also whether or not the United States representatives was on the Board of Governors, 1 vote on the Board of Governors?

As explained in the answer to question 24, the United States is virtually certain of representation on the Board of Governors when it becomes a member of the Agency. As in the U. N. and most other international organizations, each State which is a member will have one vote. As in these other organizations, United States influence in the Agency will, of course, extend far beyond our single vote.

This will be particularly true in the IAEA because of our leadership in the atoms-for-peace program and because of its dependence on our contributions and cooperation. It should be remembered also that the great majority of Agency members in the General Conference, and to even a larger extent in the Board, will be free world countries. These nations will be basically in sympathy with the United States on major issues.

12. Does the statute in any way require that any member of the Agency shall give to the Agency all requested information on peaceful uses and developments in the field of atomic energy possessed by such nation?

The supply of scientific information by members to the Agency is optional with the member, except for scientific information which is developed directly as the result of Agency assistance (art. VIII, A and B). Since the United States is not expected to be the beneficiary of Agency-supplied assistance, there would be no obligation for us to furnish any information. In no case is it contemplated that we furnish the Agency or members of the Agency classified information.

13. If the United States should deliver atomic materials to the Agency, could the United States get back this material if it so desired at any time? (I am aware that there are certain agreement provisions for recovery of material, but in the event a nation or the Agency simply refused to honor a request for returning of materials, what reliable means and methods would we have guaranteeing and actually securing the return of such materials?)

No country could itself require the return of fissionable materials that have actually been delivered to the Agency or to an Agency project. Nor can the Agency require the return of payment made for such materials. It is contemplated that such materials will be furnished to the Agency on a business basis and not as a gift. After delivery, the use and disposition of the materials are determined by the Agency itself, in which the United States will, of course, have substantial influence.

In the event that a member of the Agency should fail to comply with the safeguards established for Agency projects, the Board of Governors can call upon it to return the fissionable and other materials previously made available to it. In addition, the General Conference (under art. XIX (B)), acting by a two-thirds majority of the members present and voting upon recommendation by the Board of Governors, may suspend from membership any State that has persistently violated the provisions of the statute or of any agreement entered into pursuant to the statute. Such actions by the Board of Governors and the General Conference are not subject to any veto. Article XII (C) also requires that the Board of Governors report any noncompliance with Agency safeguards to the Security Council and General Assembly of the United Nations. In the Security Council, the Soviet Union would, of course, be able to exercise the veto power that it has exercised so often in the past, but it should be pointed out that the General Assembly, in its Uniting for Peace Resolution, has found a way to act on situations threatening international peace and security when action by the Security Council is blocked by the veto power.

14. Since only four nations presently have the ability to make fissionable material in significant quantities, what might be the pressures exerted on the United States by the so-called "have not" members of the Agency if the Agency developed grand plans for farflung operations and the United States either felt unable or, in its own best interests, unwilling to supply the demanded amount of materials to implement these programs?

The limited ability of the "have-not" nations to finance programs of unusual size, will in itself act as a brake on their aspirations. In any event, the United States is under no obligation to sell to the Agency or its members any more material than it voluntarily allocates.

15. Article IX of the statute has far-reaching provisions. Section H of article IX states that special fissionable materials in the possession of the Agency shall be stored in such a way as not to allow concentration of large amounts of such material in any one country or region. Since sizable reactors require substantial amounts of atomic material of varying degrees of enrichment and often in amounts sufficient to make weapons, what is considered to be the concentration of "large amounts of such materials?" If the United States makes available 5,000 kilograms of enriched U–235 (certainly a "large amount") does this mean that this material could not be stored in the United States or in North America, but would have to be stored at various other places in the world?

Under the proposed treaty, Nations making materials available to the Agency have complete freedom with respect to their storage. Thus, they may or may not transfer such materials to the Agency for storage. For the present, the United States will retain possession of the 5,000 kilograms of U–235 which it has offered to make available until required for use in Agency approved projects. Deliveries will be to the project site as the materials are needed.

Any subsequent determination to transfer material to the Agency for storage will be voluntary on the part of the United States.

Attempted seizure of fuels in a reactor is very unlikely because of the technical difficulty of converting to weapons material and because it would be contrary to the economic self-interest of the participating state. Fuels in large-scale reactors will be of low enrichment and are highly radioactive and hazardous to handle. Considerable time, large-scale facilities and advanced technology would be required to extract the U–235 or plutonium, upgrade the enrichment and fabricate weapons. Curtailment of all future supplies of fuel would invalidate the large investment made in a nuclear power project in the recipient country.

Plutonium generated in Agency assisted reactors will be stored by the Agency to the extent that it is not put to some immediate peaceful use under Agency safeguards. Any possible attempt to seize such material would be an open, overt act known to all member states. The amounts involved will be small relative to weapons material possessed by the United States and the Soviet Union, and could have no impact on the military balance of power between the Soviet bloc and the free world. Moreover, because of the time required to fabricate seized materials into weapons, none of the smaller powers could hope to profit from an attempt to seize materials.

16. Article IX, section D, requires that any member, "from material which it has made available," shall deliver without delay to another member or group of members such quantities of such material as the Agency may specify. Does this mean that on the demand of the Agency the United States would have to deliver, from the material which it had made available to the Agency, such amounts of this material to, for instance, Bulgaria, Czechoslovakia, Rumania, Poland or any combination of these countries, if they are members of the Agency?

The Agency may allocate material made available to it to any member State. Such material must, however, be for use in projects approved by the Board of Governors in accordance with established criteria. There is no basis in the statute for discriminating against Soviet bloc or other member states, but of course *all* Agency supported projects would be subject to inspection and safeguard provisions of article XII.

17. With reference to section J of article IX, does this mean that the United States would have no voice whatsoever (except its vote in the General Conference or possibly on the Board of Governors) as to the use to which any member would put the materials received by such member (except, of course, military use which is prohibited by the statute)?

Allocations by the Board of Governors of nuclear materials will be in accordance with established criteria for the appropriateness of projects including their scientific and technical feasibility, adequacy of plans, funds and technical personnel, and standards of health and safety. If it is assumed that the Agency will be dependent to a large degree on the United States for its supply of fissionable materials, it is reasonable to assume that the Agency will exercise due caution in allocating the materials available to it, since the pattern of its allocations will have a direct influence on the amounts of material that the United States may be willing to furnish in the future. Moreover, the United States will be able to exercise great influence on the disposition of materials available to the Agency through its membership on the Board of Governors.

18. Under article XIV, Finance, provisions are made for certain fiscal powers of the Agency. Precisely, how will the Agency be financed? Does section D of article XIV mean that members shall be assessed or required to contribute amounts as fixed by the Board of Governors under a scale established by the General Conference?

Article XIV, classifies the expenditures of the Agency in two categories; the administrative expenses and expenses other than administrative. The administrative expenses, salaries, meeting costs, rent, etc., are to be met by apportioning such expenses among members in accordance with a scale to be fixed by the General Conference. The budget estimates covering the administrative expenses shall initially be prepared by the Director General and submitted to the Board of Governors, which in turn will submit the budget to the General Conference for its approval. The General Conference therefore shall have control not only of the scale of contribution but of the Agency's administrative budget as well.

The expenses other than administrative referred to in article XIV, B 2, are to be financed from revenues accruing to the Agency as a result of the charges to be made by it for storage, hauling, materials, services, equipment and facilities furnished to members by the Agency (art. XIV, E). The membership is thus not to be assessed for the cost of projects for the benefit of a single member or a group.

Section D of article XIV therefore means that the Board of Governors shall apportion the administrative expenses reflected in the budget approved by the General Conference and consistent with the scale of contribution fixed by the General Conference. The Board of Governors does not have authority to deviate from the approved budget or from the scale of contribution established by the General Conference. And in no case can a member be required to make a contribution for other than administrative expenses.

19. Under subsection E of article XIV, is it contemplated the Agency will depend to any substantial degree whatsoever upon "voluntary contributions" as against adequate charges for atomic materials to recipient nations to cover the expenses referred to in paragraph 2 of subsection B of article XIV?

The statute has been drawn in such a fashion that there is no dependency on voluntary contributions for the functioning of the Agency. At present no specific plans for voluntary contributions are known to the United States Government. Until and unless such donations are made, the operations of Agency projects will depend entirely on charges for materials and service provided, or on conventional financing.

20. While subsection G of article XIV authorizes borrowing power on behalf of the Agency without imposing any liability on members in respect of loans to the Agency, nevertheless, would not this borrowing power and its exercise, in fact, tend to create a moral pressure upon financially responsible members of the Agency to guarantee any such loans?

The borrowing authority provided in section G of article XIV is vested in the Board of Governors but is subject to rules and limitations approved by the General Conference. It is to be expected that this Agency will conduct its financial affairs as would any organization which resorts to borrowing for authorized purposes, that is, the authority would be exercised to the extent permitted by the assets of the organization and its annual income. Although there is no provision in the statute barring a member State from acting as guarantor for a loan or loans, it is most unlikely that a contributing member would, because of moral pressures, agree to act as guarantor or surety on any loan contracted by the Agency. In the case of the United States, the United States representative to the Agency, the United States delegation to a General Conference or United States member of the Board of Governors could not legally bind the United States as guarantor without specific congressional authority.

21. Does the statute make any provision or establish any requirement that the Agency purchase materials for Agency disposition and use, or does the statute contemplate that the Agency will rely upon gifts or donations of materials to the Agency?

Article XIII of the statute states:

"Unless otherwise agreed upon between the Board of Governors and the member furnishing to the Agency materials, services, equipment, or facilities, the

Board shall enter into an agreement with such member providing for reimbursement for the items furnished."

Any donation of materials would be entirely at the discretion of the prospective donor.

22. Does the statute contain any provisions for the raising of funds for the purchase of materials?

Section E of article XIV authorizes the Board of Governors to establish a scale of charges, including reasonable storage and handling charges, for materials, services, equipment, and facilities furnished to members by the Agency. This section also provides that the scale shall be designed to produce revenues for the Agency adequate to meet the expenses and costs to be covered by the operating budget of the Agency, that is, those expenses other than the administrative expenses referred to in answer to question 18.

23. With respect to the staffing of the Agency, is there anything in the statute which permits the United States to approve or disapprove of employees, either American citizens or citizens of any other country, other than the vote which the United States might have in the General Conference or on the Board of Governors?

There is no provision in the statute which would permit the United States to approve or disapprove of employees, whether or not of American citizenship. However, American citizens will be employed by the Agency only after they have been investigated and their loyalty to the United States has been determined under provisions of Executive Order 10420, as amended. Specific arrangements between the United States and the Director General of the Agency are expected to correspond to current arrangements of this kind with respect to other international organizations.

24. What is the number of members on the Board of Governors?

In present circumstances, it is anticipated that the Board of Governors will have 23 members. Thirteen of these members will be designated in accordance with article VI of the statute by the outgoing Board or, in the case of the first Board, by the Preparatory Commission. Ten members will be elected by the General Conference.

It is expected that the following 13 states will be designated to the first Board: United States, United Kingdom, U. S. S. R., France, Canada, Brazil, Union of South Africa, India, Australia, Japan, Belgium (or Portugal), Czechoslovakia (or Poland) and one state who will qualify as a supplier of technical assistance, i. e., a Scandinavian or Western European country.

Of the 10 elected members, it is expected that 3 will be Latin Americans, 2 from Africa and the Middle East, 1 Western European, 1 Eastern European, 1 South Asian, 1 from southeast Asia and the Pacific, and 1 Far Eastern country.

25. While the statute contains certain requirements for agreement by members who receive atomic materials to use those materials for peaceful uses only, what reliable guaranties, other than "agreements," would we have against the use of atomic materials by some country or group of countries for military purposes? If a nation refused to return materials that were being wrongfully used, would the Agency expect to use force to recover the materials?

Under article XII, A (5), the Agency will have a force of international inspectors, including United States representation, who will have free access, in the territory of any recipient states, at all times to all places and data and to any person dealing with an Agency project to provide proper accountability for fissionable materials supplied and to determine whether there is compliance with the undertaking against the use of any such materials for military purposes.

The Agency itself could not use force to recover materials in the case of violation of the statute provisions. The action which the Agency can take is described in article XII, paragraph C. In the case of noncompliance by a State, the Board of Governors is required to report the facts to the Security Council and the General Assembly of the United Nations. These bodies can take whatever actions are open to them under the Charter of the United Nations, including the use of force. It must be recognized, however, that the veto in the Security Council would apply in such instances. However, in view of the other safeguards provided for the statute of the Agency, including the restriction found in article XII, A (5), against excessive stockpiling of dangerous materials, it is unlikely that a state would accept the risks involved in violation, including

the cutting off of fuel for essential nuclear power for the very limited advantages which might be gained.

26. Section D of article III states that the activities of the Agency will be carried out with due observance of the sovereign rights of states. Does this, mean, for instance, that at any time a state might determine that it no longer would permit inspection of or access to facilities and materials which it had already received under the statute, the Agency would be impotent except for the possible filing of protest, because to take any physical steps would be a violation of the sovereignty of the recipient nations?

Article III, D, states:

"Subject to the provisions of this statute and to the terms of agreements concluded between a state or a group of states and the Agency which shall be in accordance with the provisions of the statute, the activities of the Agency shall be carried out with due observance of the sovereign rights of states."

Under this provision, any claim of sovereign rights by a state receiving Agency assistance in atomic-energy projects will be subject not only to the provisions of the statute but also to the provisions of the agreement between the Agency and the state or group of states receiving Agency assistance. This agreement will make specific the safeguards and inspections to which the state receiving the assistance must submit. (See art. XI, F (4).) If a state receiving Agency assistance refused to permit inspection of or access to facilities and materials, as required by the statute and by the agreement between the Agency and the state in accordance with article XI, F (4), of the statute, the steps which the Agency can take are outlined in the answer to question 13. The claim that sovereign rights are being violated could not be invoked against the application of any of the relevant provisions of Article XII: Safeguards.

27. Once an atomic facility has been built in a member state, in the event that state should violate the Agency statute and agreement, how could the facility be recovered or removed in the event the Agency decided such action was desirable, unless the recipient state consented to such removal?

The facility could, in these circumstances, be removed only by the use of force. However, as explained in the answer to question 25, curtailment of further supply of fuel would be a most effective sanction.

28. In view of the fact that the Soviet Union and its satellites have violated nearly every formalized agreement which they have entered into, is there any assurance that they would not violate provisions of the International Atomic Energy Agency statute at any time it suited their convenience or they considered it to be advantageous to them to so violate it?

Aside from the point that violations of agreement by the U. S. S. R. are inevitably attended by an adverse world reaction, a factor which must be given weight in judging the possibilities of Soviet violation of obligations they may have accepted by joining the Agency, it is considered that Soviet development in the atomic-energy field is sufficiently advanced that there would be no reason for it to cheat the Agency. Intelligence reports do not indicate that a shortage of fissionable materials is any longer the limiting factor in Soviet nuclear capability that it was at the outset of their program.

Since Agency assistance will require Agency inspection, and since the U. S. S. R. has ample atomic-energy resources of its own, the Soviet Union is no more likely to be a beneficiary of the Agency than the United States.

It is not possible to say precisely what has been the reason for the cooperativeness which the U. S. S. R. has displayed in Agency negotiations. We believe that a major reason was their recognition that the United States intended to proceed with the creation of the Agency even without their participation. Since the United States was gaining a great deal of good will and prestige from our leadership in the creation of the Agency, the U. S. S. R. probably saw only disadvantage in continuing its opposition to the Agency. U. S. S. R. and satellite cooperation is probably motivated by a desire to secure a degree of international respectability rather than an anticipation of any opportunity to gain by violating the Agency provisions.

29. In view of the apparent inability of the United Nations to secure speedy and effective compliance by certain member nations with the directives and resolutions of the United Nations, is there any substantial reason to believe that the International Atomic Energy Agency could be any more successful?

The major factor which would indicate that the IAEA could be successful in securing compliance within its directives is that it will be empowered by a simple majority vote of its Board of Governors to cut off further assistance in cases of violation. This would affect not only new projects but the continuance of old ones. If the Agency develops as an important instrument of international cooperation in this field, it is unlikely that any state which has relied on it for assistance would want to cut itself off from such a source of information and supply. This is a type of sanction which is not available to other international organizations except the U. N., where the use of sanctions is often inhibited by the veto.

30. Ambassador James J. Wadsworth, who was the United States representative when the statute was drafted, stated: "If the Agency were to make the materials and information for peaceful development of atomic energy available throughout the world, without full assurance that they cannot be used to produce weapons, it would be adding to a problem which, difficult as it is, is sufficiently confined to keep up the world's hope for a solution." Isn't this exactly what the International Agency would do since it has no enforcement powers of its own regulations but can only appeal to the United Nations?

Atomic-energy materials and know-how will inevitably spread throughout the world, Agency or no Agency. This process is taking place today. The Agency, if successful, will accelerate this process, but will insure a safety factor that is now completely lacking. Without the Agency, there would be no certain restrictions on use of such material and technology or any limitations against stockpiling of such materials. In the statement quoted, Ambassador Wadsworth was alluding to the fact that, by developing a control system that would guard against the diversion of peaceful uses assistance to military ends, we could avoid a further complication of the problems we now face in securing a disarmament agreement.

It must be recognized that the real danger is not a sudden seizure of plants or material on hand by overt action which would immediately become known and invite rapid retaliation. A graver danger would be a gradual undetected siphoning off of materials ostensibly being used for peaceful uses, and the slow building up of a clandestine stock of weapons to be used in a moment of surprise. It is this latter danger against which the specific Agency safeguards will protect. The former is a matter for collective political action by states whose security might be endangered, and, in a world of sovereign states, no international organization has been designed to guarantee against a final resort to force. The Agency system, however, will minimize the chances of such an occurrence by minimizing the advantages which could be gained by seizure and by providing an early warning of aggressive intent.

In our bilateral agreements as well there is no final sanction, if discontinuing assistance fails, except resort to force.

31. As a matter of fact are there any reliable safeguards that would adequately insure against either the seizure of plants and facilities by a violating nation or the diversion of atomic materials for weapons use, other than simple agreements?

The safeguards which are written into the IAEA statute are designed to prevent diversion of materials or the dangerous accumulation of unused quantities of materials. We are convinced that they will be effective and adequate for this purpose. They include such concrete measures as approval of plans and inspection and measurement of materials. These safeguards will not provide an ultimate guarantee against seizure of plants and facilities, but they will succeed in making seizure unattractive and unprofitable. Even if the unexpected occurred, since the material which might be seized or diverted would not be immediately usable for military purposes, the Agency safeguards system provides an effective alarm system against aggressive intentions which would be lacking if the Agency did not exist.

32. If the Agency has sufficient atomic materials to operate on an international scale within or among some 75 or 80 countries, it then becomes a simple fact that the materials at the disposal of the Agency, and in the hands of recipient member states under Agency operation, would be sufficient for many atomic weapons. Is the United States justified in cooperating in an adventure which will place very substantial amounts of atomic materials, without realistic and practical controls and safeguards, around the world in locations and in certain states which might not hesitate to use these materials for other than peaceful purposes?

The United States would only be justified in doing this on such a scale if the U. S. S. R. followed suit. That was the President's intention and statement on December 8, 1953. However, the United States no longer enjoys a monopoly of atomic technology. The raw materials of an atomic energy program are more abundantly dispersed throughout the world than had earlier been known to be the case. Worldwide development of the use of atomic energy has already begun and its expansion is inevitable even if the Agency is not established. An effective international agency provides the opportunity to establish a framework of international controls with concrete inspection measures within which this development can take place to the greater security of all nations. Thus, the United States faces a choice of cooperation or chaos in the worldwide development of atomic energy.

33. What specific advantages in the field of peaceful uses of atomic energy could the International Agency produce that cannot be developed through the bilateral program which we now have in effect?

(*a*) The IAEA will make safeguard provisions in United States bilateral agreements more acceptable since comparable provisions of the Agency statute were written by an international conference at which 80 nations were represented. Many of the "neutralist" states that would not accept the imposition of safeguard measures by the United States alone, may be willing to undertake such commitments as part of a system in which they themselves are important participants.

(*b*) If the spread of nuclear weapons is to be discouraged and contained, the integrity of these safeguards must be maintained. Without internationally accepted standards, there may be a gradual debasement of their effectiveness. This would inevitably result from international political or commercial competition. If assistance were limited to bilateral arrangements, the U. S. S. R. would have a strong incentive to seek adherents through nuclear aid "with no strings attached"—i. e., without inspections and controls. In other countries, commercial suppliers would exert pressure on their governments to permit them to export nuclear materials and equipment under the least onerous conditions. Thus without the IAEA the erosion of control criteria would eventually tend to place any reasonably advanced country in a position to create weapons. Conversely, establishment of suitable international control criteria will make more acceptable those safeguards contained in our bilateral agreements.

(*c*) By helping to prevent unnecessary duplication of research through continuing exchange of information on research programs and results, and through arrangements for coordinated research efforts, the Agency will make possible more economic use of nuclear materials and scarce trained manpower.

(*d*) There is to be a pooling of the new discoveries made with Agency assistance by its recipients. Since the exact pattern of future scientific development is not always predictable and will not necessarily be restricted to those states with which we have bilateral relationships, the United States itself may gain, in ways not now known, from research conducted with Agency assistance.

(*e*) The IAEA provides a link between our disarmament objectives and policies and the atoms-for-peace program in a way the bilaterals cannot. The creation of a practical working model of a feasible inspection system may prove to be a valuable guide for the establishment of broader control designed to provide adequate safeguards for a disarmament agreement.

(*f*) Another important advantage offered by the international Agency is that described by President Eisenhower to the United Nations General Assembly—"to open up a new channel for peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved * * * if the world is to shake off the inertia imposed by fear, and is to make positive progress toward peace." Negotiations on the establishment of the IAEA have

opened up a new avenue of peaceful cooperation between the free world and the Soviet bloc in a field of vital importance and symbolic significance for world peace. The existence and successful functioning of this channel may in time have an impact on the general climate of international relations, an effect that goes far beyond any that might come from any bilateral program.

(*g*) Finally, if the United States does not supply the initiative for an international approach, it is inevitable some other country—most probably the U. S. S. R.—will attempt to do so. Because atomic energy is both a threat and a promise of such proportions, the world is bound to continue to seek its control and application through organized international cooperation. The United States has gained enormous goodwill and prestige from its atoms-for-peace program, and the Soviets could not be depended upon to overlook these potential political benefits.

The foregoing reply is not meant to suggest that we intend to abandon our bilateral programs; on the contrary, there remains an area of specialized cooperation which can best be served in this manner.

The United States has bilateral agreements with about 40 countries, most of which are of the nuclear research reactor type, while the remaining provide for cooperation in development of reactors for production of power. Since they can be tailored to meet specific requirements of the individual nations, bilateral agreements will continue as one means of our cooperation with foreign countries. The Atomic Energy Act of 1954 contemplates use of both bilateral and multilateral means of foreign cooperation. The more comprehensive power bilaterals contain safeguard provisions essentially identical to those of the IAEA statute.

34. Will not the United States actually be losing benefits of atomic development under the International Agency because information will be reported to that Agency and not to the United States, whereas, under the bilaterals information and discoveries will be reported by the various countries participating to the United States?

The Agency channel for United States acquisition of research information will not be less favorable than that provided in our bilaterals. Scientific information from experimentation and development in the atomic energy field which is reported to the Agency will be freely available to the United States. We will have scientists on our permanent delegation to the Board of Governors and no doubt one of their primary tasks will be to see that such data is channeled to our country. Actually, on a quantitative basis ,we may actually profit more from Agency sources than from our bilateral channels, since the former will cover a much wider range of participating countries.

35. What is the situation with regard to the European Atomic Energy Community arrangement, referred to as EURATOM? Can EURATOM participate in the International Agency or is it an independent group that will go its own way in competition with the International Agency?

The precise arrangements between EURATOM and the Agency must necessarily await the formation of both bodies before being formulated. As the statute is written, it permits cooperation between the two bodies. There is no reason to assume that anything other than a mutually advantageous relationship will develop between them.

36. It has been stated that the dissipation of fissionable materials on an international scale would diminish the amount of these materials available for use in weapons and thus contribute to the cause of world peace. If the United States is the sole, or the major, contributor of these materials to such an organization and other producing nations fail to participate, at least proportionately to their ability, how can this contribute to the cause of world peace, in view of the fact that other nations would continue to increase their potential weapon strength while we might be weakening ours?

The President's proposal involved both the siphoning off of fissionable material from the world's atomic stockpiles and the development of atomic energy for peaceful purposes without spreading the capacity to make nuclear war. The success of his effort to reduce atomic stockpiles is necessarily dependent upon equitable contributions by all producing nations. Until this commences, his objective in this respect will not be achieved. However, as the Agency develops and confidence in its integrity grows, the likelihood that it will serve both elements of the President's proposal will be enhanced. Until some effective

nuclear disarmament plan is agreed upon, the IAEA will be the best international means of channeling nuclear materials to peaceful purposes.

We can be sure in the meantime that any commitments made by our Government will take full prior account of United States national security interests.

37. Since the International Agency does not contemplate the production of fissionable materials itself, but in the main acts as a transfer agency, why set up the Agency when direct negotiation between the United States and recipient countries under our bilateral program could eliminate this step of distribution?

Use of the Agency as a medium of international cooperation has certain advantages not possible of achievement through bilateral arrangements. It opens up a new channel for peaceful discussion among nations of the world. Successful application of IAEA nuclear controls will provide a basis upon which disarmament safeguards can be constructed. Most importantly it is the best assurance we have that civil uses of atomic energy will develop under a worldwide security system.

Many of the neutral states that would not accept the imposition of safeguard measures by the United States alone, may be willing to undertake such commitments as part of a system in which they themselves are important participants. In such situations, the practical consequence would probably be direct delivery of materials, at Agency request, to projects located in the territory of recipients, committed to Agency safeguards.

38. Article III, C, states that "the Agency shall not make assistance to members subject to any political, economic, military, or other conditions incompatible with the provisions of this statute." Article XI, J, states that "No member shall have the right to require that the materials it makes available to the Agency be kept separately by the Agency or to designate the specific projects for which it must be used." Taken either separately or together, do these provisions mean that a contributing nation, such as the United States, would have no control, as a contributor, with respect to the countries or areas to which these materials would be transferred or the purposes for which they would be used (other than a restriction against military)? What is the interpretation of these provisions?

Yes. In order to make the policies of the Agency and the Board of Governors fully effective, controls by the supplier on materials made available were precluded. Thus, the U. S. S. R. could not specify that all Soviet aid must go to satellites. However, as a member of the Board of Governors and the major nuclear nation, the United States would be able to exercise substantial influence on the Board's decisions. The United States will always be free to discontinue making materials available if the Agency pursues unsound or irresponsible policies. Further, we would not need to make allocations to the Agency in the future until projects had been approved.

39. In general what is the difference between an International Agency for the distribution of atomic wealth as compared to an International Agency for the distribution of food, fiber and industrial material?

The basic difference lies in the unique commodity being distributed. The IAEA is designed to permit, and encourage, the peaceful development of atomic energy and also to insure that it takes place under conditions which will not "further any military purpose."

40. If the International Agency is to emphasize assistance to the underdeveloped nations of the world, how can they be assisted when the very fact of their underdevelopment means that they have little or no scientific competence or technical skills, unless scientific development is had in some other more competent spots and simply moved into this underdeveloped country in a sort of atomic international foreign-aid program?

The establishment of the Agency will make it possible for the United States and other nations advanced in atomic energy technology to cooperate in assisting in the training and scientific development of underdeveloped nations. The pooling of technological assistance can reduce the demands on our scarce talent. The extent to which the United States will assist in developing atomic technology of other countries under its atoms-for-peace program is entirely under United States' control, whether we contribute to this objective through the International Agency or through bilateral programs. The establishment of the Agency will, however, offer some opportunities for greater efficiency.

41. Article XV refers to privileges and immunities of the Agency and of the members of the Board of Governors as well as all other personnel of the Agency. It also seems to place authority in the Agency through its Board of Governors and the Director General to agree with the members, which may mean the General Conference, in defining such "legal capacity, privileges, and immunities." Is not this an unlimited authority to the Agency to declare any activity of the Agency or its personnel as coming within this definition without any recourse whatsoever on the part of any member (after the Agency has made its definition) against any acts engaged in by any of the Agency personnel? By way of illustration, while certain diplomatic personnel enjoy immunities in the country to which they are assigned, if they perform acts sufficiently offensive to that country the country can request their withdrawal, but it seems that not even that protective safeguard is contained in this treaty.

Article XV is not an unlimited grant of authority to the Agency to declare any activity of the Agency as falling within the category of "privileges and immunities * * * necessary for the exercise of its functions." On the contrary, it is expressly provided that such "privileges and immunities * * * shall be defined in a separate agreement or agreements between the Agency * * * and the members." In negotiating such agreements any member State can insist on provisions for recourse with regard to offensive acts.

42. Under present law can the United States make fissionable material available to any foreign state except under bilateral agreements?

Under the Atomic Energy Act of 1954, special nuclear material may be distributed abroad pursuant to an agreement for cooperation entered into in accordance with section 123 to (1) "any nation" (sec. 54), or (2) a "group of nations" with whom there is an "international arrangement" (sec. 124). The term "international arrangement" is defined in section 11 k. Section 124 has been described as providing "a mechanism to implement the President's peacetime international atomic pool plan, outlined in his speech before the United Nations on December 8, 1953" (S. Rept. No. 1699 on S. 3690, 83d Cong., 2d Sess., p. 6).

43. The statute places almost exclusive emphasis on aid to underdeveloped areas, and since most of the underdeveloped areas of the world seem to have no finances with which to purchase materials and facilities, how will they obtain such materials and facilities from the Agency except by gift to be paid for in substantial amount by the United States? How does this square with the statement in the State Department release for March 1957 with reference to the Agency, page 7, in which it is stated that "the IAEA was not created for the purpose of distributing economic aid. Unless otherwise agreed, the nations receiving materials and facilities will pay for them, and the contributing nations will be reimbursed by the Agency"? Does not the proviso "unless otherwise agreed" in fact completely nullify the reasonable possibility of any payment to any contributing nation from "underdeveloped areas"?

The cited clause "unless otherwise agreed" does not imply that there is no reasonable possibility of payment to supplying nations. Article XI, F 3 provides that charges shall be agreed upon for any materials, services, equipment, and facilities provided by the Agency.

The establishment of the IAEA will provide a channel through which atomic materials and technology can be obtained under terms and conditions to be agreed upon with supplying countries. The high priority placed on atomic development by underdeveloped countries is likely to lead them to devote some of their limited financial resources in this direction. As technological progress increases the potential contribution of the peaceful uses of atomic energy to economic welfare, there will be greater incentives to underdeveloped countries to devote resources to these purposes.

The IAEA was not created for the purpose of distributing economic aid. The use of voluntary contributions, should they be forthcoming, or grants of financial assistance is not precluded. However, underdeveloped countries seeking financial assistance for Agency approved projects will normally seek to borrow funds from the IBRD or other sources, or seek aid through other foreign aid channels. In joining the Agency, the United States would assume no obligation to donate such aid.

44. Has there been any ascertainment of the annual cost and budget of the Agency projected over the next several years? If so, what is the amount of such budget, etc., and how many employees in total over, say, the next 10 years on an annual basis may be anticipated?

The Agency's annual administrative budget is dependent upon the size of the staff which in turn will be governed by the program to be undertaken by the Agency. Preliminary thinking would indicate that the majority of member states represented on the Preparatory Commission envisage a total eventual employment of approximately 450 people with an annual assessment budget of approximately $7 million.

Expenses, other than administrative, will be financed from the revenue derived from charges.

45. Does the statute permit the Agency to have complete authority to fix compensation allowances, etc., of its personnel?

The rate of compensation and the scale of allowances and other adjustments, usually embodied in "Staff Regulations," would be established by the Board of Governors subject to general rules approved by the General Conference on the recommendation of the Board.

46. What advantages could any non-Communist nation obtain from this International Agency which it could not obtain now under a bilateral agreement with the United States?

Definite technical and economic benefits will accrue from cooperative arrangements. The Agency will stress activities where the greatest progress can be achieved through a cooperative worldwide approach. Members will have access to assistance which is not tied to any particular country or political bloc and will receive the combined benefits of assistance from all the technically advanced countries. This will be particularly important in the fields of standardization of nuclear power equipment, training, health and safety, waste disposal, and exchange of information.

More important, however, is the fact that each member can participate as an equal partner in exerting influence on the development of peaceful uses under prudent safeguards, and can enjoy the added security of knowing that a framework of international controls is being established.

47. Will the establishment of the International Agency in effect nullify or greatly depreciate the bilateral agreement program of the United States?

No, it will not. The two programs are complementary. The Agency will provide enlarged facilities and opportunities for the training and research necessary to equip countries to achieve concrete results in the use of atomic energy. The pool of trained manpower available from all technically advanced countries will reduce the drain on United States resources both for operating programs and inspection and control. By establishing worldwide patterns of control the Agency will be contributing to the broader objectives of world security and influencing desirable worldwide developments. The bilateral program lends itself to being specifically tailored to meet the particular needs of individual countries.

The Atomic Energy Act of 1954 contemplates the use of both channels of foreign cooperation.

48. Has any other nation in ratifying the treaty attached any reservations, interpretations, or other limitations in its act of ratification, and if so, what are the nations and what are the limitations?

The only nation which, to date, has made a reservation or other statement in depositing its instrument of ratification is Switzerland, which made the following reservation (in translation):

"Upon the occasion of the deposit of its instrument of ratification of the Statute of the International Atomic Energy Agency, Switzerland makes the general reservation that its collaboration with the International Atomic Energy Agency, particularly with regard to the relations of that organization with the United Nations, may not go beyond the limits imposed upon it by its position as a perpetually neutral state. It is within the meaning of this general reservation that it makes a special reservation both with respect to the text of article III, letter b, figure 4, of the statute and with respect to any similar clause that might replace or supplement these provisions in this statute or in another arrangement."

This reservation means that Switzerland does not obligate itself to report to the United Nations since it is not a member.

Venezuela made a reservation on signing the statute.

This reservation states that in signing or ratifying the statute Venezuela does not imply acceptance of the jurisdiction of the International Court of Justice without its express consent in each case and that Venezuela will not regard any amendments as operative until its constitutional provisions have been complied with.

The CHAIRMAN.

Mr. Pastore?

Senator PASTORE. Mr. Secretary, let me say as a predicate to my questioning that I was associated with the American delegation in the formulation and adoption of this statute before the United Nations, and that I for one believe in the spirit, the purpose, the ideal and the fact that we have achieved a reasonable compromise in so far as an effective statute is concerned.

I realize some of the opposition that might come into play with reference to this statute, and I realize too that wisely you have confined yourself to the political aspects of this question, and the other elements will be discussed by men who are possibly more familiar with it.

BILATERAL AGREEMENTS AND THE INTERNATIONAL AGENCY

You have touched in your statement on this question of the difference between bilaterals and this International Agency. I think that you have delineated pretty well some of your arguments of distinction. I realize of course that a great argument will be made in the future, why do we need this International Agency if we have bilaterals with practically all of the free nations of the world.

At this moment I think we have about 44 bilateral agreements. Eight of them of course are power-reactor bilaterals.

Can you be a little more explicit on that point?

Why is it necessary, realizing the fact that we have not yet developed technical knowledge nor the technology to detect hidden stockpiles which will lead to effective disarmament agreements on the use of nuclear and thermonuclear weapons, why do you feel that it is necessary to develop an international attitude with reference to control and inspection for eventual proper control in disarmament agreements?

Would you care to discuss that point?

Secretary DULLES. Yes, sir. There are several reasons that support our view that an international agency is preferable.

The first is that even though we do now have these bilaterals, which impose adequate standards in our opinion, unless there is an international agreement, there is almost sure to be competition later on among the suppliers in bilaterals. An effect of the competition in this field will be to force the standards down.

At the moment we have a sufficient preponderance in the field so that we can, in a sense, write our own ticket. But that will not always be the case.

The second thing is that we do not believe, in fact we have reason to believe the contrary, we do not believe that nations will indefinitely accept having their powerplants inspected just by the United States.

They will accept international supervision indefinitely, but they will not, I think, indefinitely accept mere inspection by another nation.

A third reason is that I understand we do not have adequate technical people to carry out the inspection, as the need develops. It would be a drain upon our manpower resources which we would much prefer to avoid by sharing the task with others—to have an international inspection team and not have to draw entirely upon United States people to carry out the inspection.

INSPECTION AND CONTROL

Senator PASTORE. Isn't it a fact that in so far as inspection and control of nuclear energy is concerned, that the line of demarcation between peaceful and military uses is becoming more and more a fictional line?

If ever we are going to develop an international attitude towards inspection and control, which presently is the only effective means of determining where nuclear fissionable material is and where reactors are, and where stockpiles are, we have to develop an international attitude towards these procedures, and that this lays a basis that eventually could be used as a groundwork for future agreements on disarmament and control of nuclear and thermonuclear weapons?

Secretary DULLES. Yes, Senator, I think that is a very accurate and fine statement you have made.

RED CHINA

Senator PASTORE. There is a serious question that this will afford Red China an opportunity to participate in this International Agency as distinguished from the problems which we have had with Red China and the United Nations.

Are you prepared to make any comment on that?

Secretary DULLES. In my opinion there is no appreciable danger in that respect. China will already be represented in this Agency by the National Government of China. As long as the National Government of China exists, and we think and believe that that is for an indefinite time, it will represent China.

I do not see how another government can very well intrude itself into a field already preempted by another national government.

Senator PASTORE. I will wait for my next turn around.

The CHAIRMAN. Mr. Knowland?

TREATY AMENDMENT PROVISIONS

Senator KNOWLAND. Mr. Secretary, I have a number of questions, some of which you may be able to answer, some of which you may prefer to pass on to Mr. Wadsworth or someone else.

On the provisions under this international treaty providing for amendment, as I understand it, it can be modified, amended, by a two-thirds vote of the members present; and once modified it becomes binding on all the members without reverting back to all of the countries for their approval of modification.

Isn't this a rather unusual provision in a treaty—that the basic document can be fundamentally modified without the submission of a major revision to the Senate, in the case of our own country?

Secretary DULLES. The necessary steps for amending the statute, Senator, are that the proposed amendment must be approved by two-thirds of those present and voting in the general conference after consideration of the observations of the Board of Governors, and must be accepted by two-thirds of all the members in accordance with their constitutional processes.

Our position is protected, Senator, by the fact that we have the right to withdraw in the case of any amendment of which we do not approve. In view of the preponderant role which the United States will play, and I have testified that in my opinion it could not get started without the United States, I am equally prepared to testify that for the foreseeable future it could not continue without the United States. We, in effect, have control over the amendments in that if there was an amendment which the Senate did not approve, we would then withdraw.

To answer your other question, whether this is unusual, I may say that the same amendment process is to be found in the World Health Organization, UNESCO, and International Civil Aviation Organization.

Anything less than that, Senator, would mean that any member country would have a veto power over amendments which in the course of time might be found to be desirable by the United States and other important countries. Rather than give any one of 80 nations a complete veto power over what we might want to see done and others might want to see done, it seemed preferable to set it up so that if a qualified majority wanted the amendment, it would be effective, but if we did not like it, we would get out, and thereby have in effect a practical veto power over amendments.

RATIO OF CONTRIBUTION

Senator KNOWLAND. Of course you then come to the second point. That might be an entirely satisfactory arrangement save for the unusual factor in this case. At least at the present time the fuel that is being furnished to get the Agency underway is at the present time, and we all hope that that will not continue, at the ratio of 5,000 to 50, or perhaps to be more accurate, 5,000 to 50 plus 20, which I think the British have agreed to put up. That sets a ratio of, we will say, 5,000 kilograms for the United States and 70 kilograms for the rest of the world.

That is a pretty predominant ratio of contribution.

Secretary DULLES It is so predominant that I am quite sure that it means there will be no amendments adopted here which we do not approve of.

THE AGENCY'S SOLE CONTROL OF CONTRIBUTED MATERIALS

Senator KNOWLAND. Is it not a fact, under the statute, that, except as we might use our good offices as one member of the Board of Governors, once the contribution has been made to the international agency, we have no control over the contributed material beyond that point?

In other words, the sole disposal is within the hands of the international agency?

Secretary DULLES. Our commitment of the 5 million is nothing that is irrevocable because it is on terms and conditions to be negotiated, and except to the extent that it had already been actually drawn upon in accordance with terms that we approved of——

Senator KNOWLAND. I think you will want to correct the record to 5,000. You said "5 million."

Secretary DULLES. Excuse me, 5,000. The unusued portion would still be subject to our terms and conditions, and would of course be stored in the United States, so it would not be out of our control.

INSPECTION

Senator KNOWLAND. Mr. Secretary, you mentioned the question of the desirability of at least starting on an inspection system. It is correct, however, is it not, that under the international statute the only inspection powers which the inspectors would have would be in the power reactor plants themselves, and that they would not have the power of general inspection within the country, so that if you had a powerplant in Prague and you had a weapons plant in a neighboring city a hundred miles away, the inspectors would have no authority other than in the powerplant?

Secretary DULLES. Yes, sir, that is true.

It is equally true of course under our own bilateral arrangements. We only have the right of inspection in the actual powerplants. We do not have the general right of inspection throughout the country.

BILATERAL AGREEMENTS

Senator KNOWLAND. I have just one more question, Mr. Chairman. While I understand a certain desirability which you have expressed for the international treaty, I would like either now or at some future date to have one of the witnesses go into more detail as to precisely what can be done under the international treaty which is here submitted, which could not be done just as well under the bilateral agreements.

Secretary DULLES. That can be and will be elaborated, Senator. I think that the answer which I made to Senator Pastore indicates that while in theory you could have the same degree of inspection under bilaterals as you have under the international agency, that in fact there would be competition between the countries—there is already evidence of that now—as to who would want to sell this material. One result would be dropping these standards of inspection, so that in fact we would not be able to maintain our own standards as the era of plenty arrives in this field.

Secondly, as I pointed out, there is objection to continuing inspection just by one nation as against international system.

Thirdly, as I pointed out, we do not have the manpower to do it adequately as the need increases.

So I think those answers would be elaborated by persons who can speak with more authority than I, particularly Admiral Strauss.

But I think you will find that those are convincing reasons. They have been convincing to me at least.

Senator KNOWLAND. I understand my time has expired.

The CHAIRMAN. There will be another round later.

Mr. Mansfield?

Senator MANSFIELD. Mr. Secretary, do you have an atomic assistant in the Department or an atomic branch in the Department of State?

Secretary DULLES. Yes, we have a highly competent adviser on these matters who is sitting at my left hand now, Mr. Gerard Smith.

Senator MANSFIELD. I am just seeking information. This is all new to me. Do you have science advisers in the Department of State?

Secretary DULLES. I think that we have not maintained our science advisers to the degree desirable because of budget problems.

Senator MANSFIELD. Are you satisfied that the United States is doing a good job in exporting power reactors to underdeveloped areas?

POWER REACTORS FOR UNDERDEVELOPED COUNTRIES

Secretary DULLES. I missed the first part of your question, Senator, I am sorry.

Senator MANSFIELD. Are you satisfied that the United States has been doing a good job in exporting power reactors to underdeveloped areas?

I recall that in a discussion of this matter before the committee last year Admiral Strauss appeared as a witness and maybe he should be the one who should answer that question.

Secretary DULLES. I would rather have him answer it, if I may.

Senator MANSFIELD. Would you answer that, Admiral?

Mr. STRAUSS. Senator Mansfield, as far as I know, no power reactors have been exported to so-called underdeveloped areas in the world by the United States or by any other country to date. We have, however, under active development in the United States reactors designed or at least useful for that purpose, and one of them can be seen by you if you are interested, operating at the present time at Fort Belvoir, which is about a half hour outside of Washington. It was put on stream about 10 days ago.

Senator MANSFIELD. What about the reactor agreements we have reached with the Republic of the Philippines and I think at least one other Asiatic country?

Have we entered into any agreements with the Republic of the Philippines?

Mr STRAUSS. We have research agreements, Senator Mansfield, with the Philippines, and as has been stated, with some forty-odd other countries, calling for assistance and the exchange of information to facilitate those countries in the erection of research reactors, one of the primary purposes of which is to enable them to train personnel to operate power reactors in the future. It would be of little purpose for us to provide underdeveloped nations with a tool as potent and as in a way dangerous as a power reactor unless they possessed sufficient skilled personnel to operate it.

We do not have at the present time in the United States a supply of technical manpower sufficiently large to enable us to feel that we could export that skill to any great extent.

COMPARISON OF UNITED STATES, BRITISH AND RUSSIAN RESEARCH DEVELOPMENT

Senator MANSFIELD. Do you think, Admiral, that we have progressed as far as the Soviet Union and the British in the development of research and/or power reactors?

Mr. STRAUSS. I am a self-serving witness in that respect, Senator. I think we are far ahead of those countries, but I would not ask you to rely upon my testimony alone. That is the considered judgment and has been expressed in writing by a symposium of experts who have canvassed that question.

As far as we know, the Russians have only one reactor which they have announced, which is a 5,000 kilowatt reactor of a type that we regard as primitive, which they indicated had come on stream in 1954. We have had reactors of considerably larger size such as the *Nautilus* and the prototype of the *Nautilus* operating since 1953, and we have 6 power reactors coming on stream in the United States in this calendar year, 2 of which are already operating.

Senator MANSFIELD. Mr. Chairman, I would like to express the hope, because of certain questions which have been bothering me, that we may have the benefit of Admiral Strauss and his colleagues, Mr. Vance, Mr. Murray and Mr. Libby, appearing before the committee in the discussion of this particular matter.

Could we have some assurance to that effect?

Secretary DULLES. Is it not a fact that Admiral Strauss has been asked to appear as a witness on Tuesday and he is prepared to do so?

Senator MANSFIELD. I would like to see other members of the Commission appear at the same time because there might be some questions on which there may well be a difference of opinion.

SAFEGUARD DEVICE—BASIS FOR U. N. ACTION

Now, Mr. Secretary, it has been said that in one respect the safeguard devices under the agency statute are superior to our own because provision is made for a contractual basis of United Nations action.

Just how would this contractual basis of action operate to insure against misuse of atomic materials?

Secretary DULLES. You are asking what sanctions there are behind this?

Senator MANSFIELD. My time is up, Mr. Secretary.

Could you furnish a reply for the record?

Secretary DULLES. I will be glad to do so.

(See letter from the Department of State, p. 51.)

The CHAIRMAN. Mr. Bricker?

BILATERALS

Senator BRICKER. Mr. Secretary, will you furnish for this committee in its consideration of this treaty, a list of all of the bilaterals that we have with the various countries of the world, and the ones that are under negotiation with other countries?

(See status report on p. 50.)

Senator BRICKER. Yesterday the Atomic Energy Committee recommended out an indemnity or supplemental insurance program for the

domestic power program of $500 million above and beyond what would be available in private insurance, showing the importance of protection of the public.

I would like also if we could have from you or from the Atomic Energy Commission the nature of the inspection that is provided in the bilateral agreements on the reactors that we are furnishing and supplying materials for to the various countries of the world, as well as the distinction that there might be in any inspection system that is set up in this international agency.

Secretary DULLES. Those will be made available, Senator.

I understand that all these bilaterals are a matter of record with the joint committee.

Senator BRICKER. That is right, but not in this record. They will be made available?

Secretary DULLES. They will be made available also as part of this record.

Senator BRICKER. I think we ought to have them.

(See p. 50 for information on the bilateral agreements. The Atomic Energy Commission subsequently supplied the following information on comparison of safeguard provisions in the bilaterals and the statute:)

COMPARISON OF SAFEGUARDS PROVISIONS CONTAINED IN BILATERAL AGREEMENTS FOR COOPERATION AND IN THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

AGREEMENT FOR COOPERATION [1]	STATUTE OF INTERNATIONAL ATOMIC ENERGY AGENCY
ARTICLE XII	ARTICLE XII
The Government of the United States of America and the Government of Switzerland emphasize their common interest in assuring that any material, equipment, or device made available to the Government of Switzerland pursuant to this Agreement shall be used solely for civil purposes.	A. With respect to any Agency project, or other arrangement where the Agency is requested by the parties concerned to apply safeguards, the Agency shall have the following rights and responsibilities to the extent relevant to the project or arrangement:
A. Except to the extent that the safeguards provided for in this Agreement are supplanted, by agreement of the Parties as provided in Article XI, by safeguards of the proposed international atomic energy agency, the Government of the United States of America, notwithstanding any other provisions of this Agreement, shall have the following rights:	

[1] Text taken from Agreement for Cooperation with Switzerland.

EQUIPMENT AND FACILITIES

(1) With the objective of assuring design and operation for civil purposes and permitting effective application of safeguards, to review the design of any

(i) reactor and

(ii) other equipment and devices the design of which the United States Commission determines to be relevant to the effective application of safeguards, which are to be made available to the Government of Switzerland or any person under its jurisdiction by the Government of the United States of America or any person under its jurisdiction, or which are to use, fabricate or process any of the following materials so made available: source material, special nuclear material, moderator material, or other material designated by the United States Commission;

1. To examine the design of specialized equipment and facilities, including nuclear reactors, and to approve it only from the viewpoint of assuring that it will not further any military purpose, that it complies with applicable health and safety standards, and that it will permit effective application of the safeguards provided for in this article;

Source and Special Nuclear (Fissionable) Materials

(2) With respect to any source or special nuclear material made available to the Government of Switzerland or any person under its jurisdiction by the Government of the United States of America or any person under its jurisdiction and any source or special nuclear material utilized in, recovered from, or produced as a result of the use of any of the following materials, equipment, or devices so made available:

(i) source material, special nuclear material, moderator material, or other material designated by the United States Commission,

(ii) reactors,

(iii) any other equipment or device designated by the United States Commission as an item to be made available on the condition that the provisions of this subparagraph A. 2 will apply,

(a) to require the maintenance and production of operating records and to request and receive reports for the purpose of assisting in ensuring accountability for such materials; and

(b) to require that any such material in the custody of the Government of Switzerland or any person under its jurisdiction be subject to all of the safeguards provided for in this Article and the guaranties set forth in Article XIII.

3. To require the maintenance and production of operating records to assist in ensuring accountability for source and special fissionable materials used or produced in the project or arrangement;

4. To call for and receive progress reports;

Source and Special Nuclear (Fissionable) Materials—Continued

(3)[2] To require the deposit in storage facilities designated by the United States Commission of any of the special nuclear material referred to in subparagraph A. 2 of this Article which is not currently utilized for civil purposes in Switzerland and which is not purchased pursuant to Article VII, Paragraph E. (a) of this Agreement, transferred pursuant to Article VII, Paragraph E. (b) of this Agreement, or otherwise disposed of pursuant to an arrangement mutually acceptable to the Parties;

VII. D. It is agreed that when any source or special nuclear materials received from the United States of America require reprocessing, such reprocessing shall be performed at the discretion of the United States Commission in either United States Commission facilities or facilities acceptable to the United States Commission, on terms and conditions to be later agreed; and it is understood, except as may be otherwise agreed, that the form and content of the irradiated fuel elements shall not be altered after their removal from the reactor and prior to delivery to the United States Commission or the facilities acceptable to the United States Commission for reprocessing.

IX. H. The Agency shall be responsible for storing and protecting materials in its possession. The Agency shall ensure that these materials shall be safeguarded against (1) hazards of the weather, (2) unauthorized removal or diversion, (3) damage or destruction, including sabotage, and (4) forcible seizure. In storing special fissionable materials in its possession, the Agency shall ensure the geographical distribution of these materials in such a way as not to allow concentration of large amounts of such materials in any one country or region of the world.

XII. 5. To approve the means to be used for the chemical processing of irradiated materials solely to ensure that this chemical processing will not lend itself to diversion of materials for military purposes and will comply with applicable health and safety standards; to require that special fissionable materials recovered or produced as a by-product be used for peaceful purposes under continuing Agency safeguards for research or in reactors, existing or under construction, specified by the member or members concerned; and to require deposit with the Agency of any excess of any special fissionable materials recovered or produced as a by-product over what is needed for the above-stated uses in order to prevent stockpiling of these materials, provided that thereafter at the request of the member or members concerned special fissionable materials so deposited with the Agency shall be returned promptly to the member or members concerned for use under the same provisions as stated above;

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[2] VII E. With respect to any special nuclear material produced in reactors fueled with materials obtained from the United States which are in excess of Switzerland's need for such materials in its program for the peaceful uses of atomic energy, the Government of the United States of America shall have and is hereby granted (*a*) a first option to purchase such material at prices then prevailing in the United States for special nuclear material produced in reactors which are fueled pursuant to the terms of an agreement for cooperation with the United States of America, and (*b*) the right to approve the transfer of such material to any other nation or international organizations in the event the option to purchase is not exercised.

INSPECTION

XII. A.
(4) To designate, after consultation with the Government of Switzerland, personnel who, accompanied, if either Party so requests, by personnel designated by the Government of Switzerland, shall have access in Switzerland to all places and data necessary to account for the source and special nuclear materials which are subject to subparagraph A. 2. of this Article to determine whether there is compliance with this Agreement and to make such independent measurements as may be deemed necessary;

A.
6. To send into the territory of the recipient State or States inspectors, designated by the Agency after consultation with the State or States concerned, who shall have access at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment, or facilities which are required by this Statute to be safeguarded, as necessary to account for source and special fissionable materials supplied and fissionable products and to determine whether there is compliance with the undertaking against use in furtherance of any military purpose referred to in subparagraph F–4 of article XI, with the health and safety measures referred to in sub-paragraph A–2 of this article, and with any other conditions prescribed in the agreement between the Agency and the State or States concerned. Inspectors designated by the Agency shall be accompanied by representatives of the authorities of the State concerned, if that State so requests, provided that the inspectors shall not thereby be delayed or otherwise impeded in the exercise of their functions;

B. The Agency shall, as necessary, establish a staff of inspectors. The staff of inspectors shall have the responsibility of examining all operations conducted by the Agency itself to determine whether the Agency is complying with the health and safety measures prescribed by it for application to projects subject to its approval, supervision or control, and whether the Agency is taking adequate measures to prevent the source and special fissionable materials in its custody or used or produced in its own operations from being used in furtherance of any military purpose. The Agency shall take remedial action forthwith to correct any non-compliance or failure to take adequate measures.

CORRECTIVE ACTION IN THE EVENT OF NON-COMPLIANCE

A.
(5)[3] In the event of non-compliance with the provisions of this Article or the guaranties set forth in Article XIII and the failure of the Government of Switzerland to carry out the provisions of this Article within a reasonable time, to suspend or terminate this Agreement and require the return of any materials, equipment, and devices referred to in subparagraph A. 2 of this Article;

A.
7. In the event of non-compliance and failure by the recipient State or States to take requested corrective steps within a reasonable time, to suspend or terminate assistance and withdraw any materials and equipment made available by the Agency or a member in furtherance of the project.

[3] Article XIII provides for the guaranties that the safeguards measures will be carried out.

CORRECTIVE ACTION IN THE EVENT OF NON-COMPLIANCE—Continued

C. The staff of inspectors shall also have the responsibility of obtaining and verifying the accounting referred to in sub-paragraph A–6 of this article and of determining whether there is compliance with the undertaking referred to in sub-paragraph F–4 of article XI, with the measures referred to in sub-paragraph A–2 of this article, and with all other conditions of the project prescribed in the agreement between the Agency and the State or States concerned. The inspectors shall report any non-compliance to the Director General who shall thereupon transmit the report to the Board of Governors. The Board shall call upon the recipient State or States to remedy forthwith any non-compliance which it finds to have occurred. The Board shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations. In the event of failure of the recipient State or States to take fully corrective action within a reasonable time, the Board may take one or both of the following measures: direct curtailment or suspension of assistance being provided by the Agency or by a member, and call for the return of materials and equipment made available to the receipient member or group of members. The Agency may also, in accordance with article XIX, suspend any non-complying member from the exercise of the privileges and rights of membership.

HEALTH AND SAFETY

A.

(6) To consult with the Government of Switzerland in the matter of health and safety.

A.

2. To require the observance of any health and safety measures prescribed by the Agency;

UNDERTAKING TO FACILITATE SAFEGUARDS

B. The Government of Switzerland undertakes to facilitate the application of the safeguards provided for in this Article.

XI.

F.

4. Include undertakings by the member or group of members submitting the project: (a) that the assistance provided shall not be used in such a way as to further any military purpose; and (b) that the project shall be subject to the safeguards provided for in article XII, the relevant safeguards being specified in the agreement;

The Agreement for Cooperation with Switzerland is representative of our agreements that cover cooperation in the construction of power reactors.

As can be seen from the comparative table of the two texts, the safeguards provisions of the bilateral agreements and those of the Agency are both comprehensive and provide the means of securing the same objectives. Both provide for the review or approval of the design of equipment and facilities; both require full accountability for source and special nuclear (fissionable) material, includ-

ing the right to require storage of reactor-generated material in excess of that needed for approved peaceful purposes; both provide for inspection and access to all places and data (and persons in the case of the Agency); and both provide for termination of assistance and withdrawal of materials and equipment in the event of noncompliance.

The Agency statute establishes the basis for negotiating subsequent agreements with members of the Agency applying for assistance. The bilateral agreement, in relation to the United States bilateral program, is comparable to the agreements which the Agency subsequently will negotiate with members seeking assistance.

The Agency is of course not yet in existence. Likewise there has been no occasion so far to implement the safeguards system under the bilateral program. In the future implementation of both these systems similar techniques of necessity will be used.

AVAILABILITY OF SCIENTISTS AS INSPECTORS

Senator BRICKER. Now last year when the debate was carried on in the Senate in regard to the atomic energy program and the authorization of the Atomic Energy Commission for the building of reactors, as distinguished from private companies building them, it was suggested by the Chairman of the Commission that the availability of scientists in that field, both for the planning and the building and for the supervision and operation of these plants, that the number of scientists is actually limited, and that we would have to deplete the scientists in the research field and in the production field of the Atomic Energy Commission if we were to enter into that program.

Where are the inspectors to come from to carry on this very extensive program, unless they come from the United States and the Soviet Union?

I doubt if Great Britain would be able to furnish very many. They would have to be scientists with a high degree of skill. How would we get them unless we also deplete our reserve of scientists available for the Atomic Energy Commission and our own domestic program?

Secretary DULLES. One of the advantages of this program, Senator, is that it will permit training of inspectors from other countries, Western Europe, Scandinavia and so forth. In that way the available manpower will be considerably increased.

Instead of our sending our people themselves to inspect, we will be sending our people to train inspectors so that out of the efforts of one man there may come available 50 people.

In that way the available inspectors will be largely increased and it will not be such a drain on our own manpower.

Senator BRICKER. Isn't that being done under the bilateral agreements and isn't that one of the inducements for the bilateral agreements?

Secretary DULLES. No, we do not train inspectors under the bilateral agreements.

Senator BRICKER. I think it was testified a few moments ago by Mr. Strauss, at least we have been told that in the Atomic Energy Committee, that that is one of the plans and purposes of starting the experimental reactors, to train scientists in those countries to be able to take over.

Mr. STRAUSS. As operators, Senator.

Senator BRICKER. What is the distinction between an operator and an inspector? They both have to be of high quality, high scientific ability. How do you anticipate training these people through an international agency such as set up here in the statute, that we could not do in the bilateral arrangements?

Secretary DULLES. In theory I suppose you can do all of these things with bilaterals, but as I have testified, the theory of doing it through bilaterals is almost sure to break down, for reasons which I have indicated. There is quite a difference between training people to operate one of these plants and training people to serve as inspectors.

A lesser degree of qualification is required to enable a person to be an inspector than to be an operator.

Senator BRICKER. A less degree you say?

Secretary DULLES. A less degree, yes, to be an inspector than to be capable of operating one of these plants.

IS THE STATUTE SELF-EXECUTING?

Senator BRICKER. In answer to the question of Senator Hickenlooper, I was not clear as to whether you think this international statute is self-executing or not.

Secretary DULLES. It is self-executing, but as I have pointed out, the obligations of the United States under the treaty are very limited.

Senator BRICKER. I did not get the last part of the answer. Would the Congress be called upon then to implement it in any way, and if in any way, where or how?

Secretary DULLES. It is already to some extent capable of being implemented by existing legislation which has been enacted by the Congress in contemplation of this agency. There would be further legislation sought which would deal with you might call it technical implementation of the treaty.

Senator BRICKER. Just one more question, if I may, Mr. Chairman. Do you consider then that the Atomic Energy Act of 1954 is an implementation in advance authorizing the contribution or the sale of the material to this international Agency?

Secretary DULLES. Yes, sir.

Senator BRICKER. And that would only have to be submitted to the committee then for the 30-day period?

Secretary DULLES. Mr. Chairman, could I say—Admiral Strauss, do you want to speak to this?

Mr. STRAUSS. I simply want to make a response to Senator Bricker's point in which he referred to testimony that I had given last year with reference to the bill proposed by Senator Gore for the construction of some $400 million worth of reactors in the United States, and in the course of which I had cited the existing shortage of scientific manpower.

That, Senator Bricker, had to do with an immediate demand for that manpower if we proceeded with that program.

The inspection system which will be installed if this Agency is ratified and comes into existence, will deal with reactors, none of which can be completed within the next 3 to 5 years.

The plans do not exist. When they exist they will have to be approved by the Agency. The fissionable material will have to be

allocated but not installed. It will not be installed until the plants have been financed and constructed. Therefore there would be that interval of between 3 and 5 years for the enlistment and training of inspectors.

I simply wanted to make clear that there was a difference between an immediate situation, an immediate draft on our technical manpower for immediate construction of reactors in the United States, and on the other hand for the inspection of reactors which will not come into existence for a period of years.

Thank you.

The CHAIRMAN. Mr. Dworshak?

IS THERE DANGER OF USE OF ATOMIC MATERIALS FOR MILITARY PURPOSES?

Senator DWORSHAK. Mr. Secretary, I am sure we all agree on the commendable objectives of using atomic energy for peaceful purposes, but probably we ought to question the feasibility of such a program.

Therefore I ask you this question: To what extent would this international Agency deal with weapons and warmaking aspects of atomic energy?

Secretary DULLES. It would not deal with them at all except in the negative sense of maintaining a supervision to be sure that the nuclear material furnished was not used for warmaking purposes.

Senator DWORSHAK. The information sheet made available to members of the committee lists this program as embracing these goals: power production, reactor projects, nuclear fuel, research development, exchange of scientific information.

This leads me to ask the question that if this proposal, this program, is successful, how would you prevent member nations from utilizing this information and atomic materials for military purposes, because the more adept, the more experienced they became in peaceful uses of atomic energy, isn't it only natural to assume that they could utilize all of this information and this uranium or atomic energy by diversion to war and military purposes?

Secretary DULLES. In the first article, "Objectives" of the agency, it is said there the purpose is to be sure that the material is not used in such a way as to further any military purposes.

The Agency, of course, has no police power to enforce by military means its own edicts in this matter. Whether the material is furnished under bilaterals with safeguards or under multilateral safeguards, there is always the risk that a country can violate the agreement.

There is a very strong moral sanction against doing so, and, of course, any violator would automatically be denied any right to any further material.

Senator DWORSHAK. If there is such a diversion, isn't it probable that you would not learn about it until after the act has been completed and the damage done?

How would you anticipate and prevent it?

Secretary DULLES. As I said in my prepared statement, Senator, the process of converting the kind of material that will be furnished for peaceful purposes into weapons quality is an elaborate and expensive process of a magnitude which would be very difficult to carry out without its becoming known.

Senator DWORSHAK. But the same uranium in atomic energy that is applicable to peaceful uses can be utilized for military purposes and atomic weapons; is that not true?

Secretary DULLES. No, sir.

Senator DWORSHAK. It is not?

Secretary DULLES. No, sir.

Senator DWORSHAK. Why not?

Secretary DULLES. I would rather have you ask Admiral Strauss to answer that, but the quality of material furnished for peaceful uses and indeed desirable for peaceful uses is quite different from the weapons quality material. To make one into the other is a very elaborate and expensive operation.

At least so I am told. I am no expert in this field myself.

Senator DWORSHAK. On page 7 of the information sheet we find—

> Uranium 235 to be made available to the international agency for distribution to member nations will not be transferred immediately to the Agency but for the present will be retained by the United States until it is called upon for delivery to the site of use in an Agency-approved project.

By implication does that not mean that the United States will be expected to furnish a large part of uranium 235 to the International Agency, presumably for peaceful uses but possibly not?

What is the meaning of that, that the United States will retain uranium 235 until it is required to turn it over?

Naturally as we in this country have probably the greatest source of uranium, atomic energy, if we participate fully in this proposed International Agency, is it not likely that we will be asked very promptly to turn over uranium to the agency?

Secretary DULLES. No, not until arrangements of a specific character are made for its disposal on terms and conditions which we ourselves agree to.

Senator DWORSHAK. You insist, then, that there are proper safeguards to ensure the use of atomic energy for peaceful purposes?

Secretary DULLES. I do feel that way, but you will get much more authoritative judgments on that from the experts in the atomic field than from me.

Senator DWORSHAK. I am glad to have your views, as the Secretary of State.

One more question.

On page 5 of this information sheet is this quote:

> It will be recalled that one of the main aims of the President's 1953 proposal was to siphon off fissionable materials from the world's atomic weapons stockpiles.

Do you interpret that to mean that the United States would be willing to dissipate its own atomic weapons stockpiles and make this nuclear power and energy available to the International Agency with the hope that we might encourage all of the member nations to do likewise?

Secretary DULLES. It is our hope that the Soviet Union will also put into this Agency or make available to it a portion of its stockpile, thereby diverting it from potential military purposes to peaceful purposes.

Senator DWORSHAK. My time is up. Thank you.

The CHAIRMAN. Under the 6-minute rule which was adopted, the list has been completed, but there were those who under that rule had

not asked all the questions they wished to ask. I had in mind having a second round under the same 6-minute rule, but that would take us a good while longer.

How much longer would you feel like remaining, Mr. Secretary? Or would you prefer to arrange to come back at some future time?

Secretary DULLES. Mr. Chairman, I would very much prefer to withdraw as a witness now. We have a very distinguished visitor here from abroad whom you entertained here yesterday and I have to prepare for further conferences with him. If it were feasible for me to withdraw at this point and to allow Ambassador Wadsworth to subject himself to your questioning as a witness, and then Admiral Strauss on Tuesday, I would always be available to come back to the committee to supplement my testimony, if that would be agreeable.

The CHAIRMAN. We will abide by your wishes. You prefer to discontinue the hearing now?

Secretary DULLES. I would, sir, if I could, because I have an important meeting right after lunch with President Ngo Dinh Diem and I have got to get ready for that.

The CHAIRMAN. We wish to accommodate you.

At this time this hearing will be adjourned.

Senator HICKENLOOPER. Mr. Chairman, just before adjournment I would like to ask consent to have incorporated at the end of my interrogation this morning a series of 48 questions which I submitted some time ago to the Department of State on this treaty and the answers of the Department of State as returned to me.

I understand by inquiry that there is nothing of a classified nature in the replies.

The CHAIRMAN. Very well.

(See p. 52.)

We will stand in adjournment until next Tuesday, May 14, at 10 o'clock in the morning.

At that time our witness will be Adm. Lewis Strauss, of the Atomic Energy Commission.

(Whereupon, at 12:25 p. m., the committee was adjourned, to reconvene at 10 a. m. Tuesday, May 14, 1957.)

STATUTE ON THE INTERNATIONAL ATOMIC ENERGY AGENCY

TUESDAY, MAY 14, 1957

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, D. C.

The committee met, pursuant to recess, at 10:15 a. m., in room 457, Senate Office Building, Senator Theodore Francis Green (chairman) presiding.

Present: From the Senate Foreign Relations Committee: Senators Green (chairman), Mansfield, Kennedy, Wiley, Smith (New Jersey), Hickenlooper, and Aiken. From the Joint Committee on Atomic Energy: Senators Anderson, Hickenlooper, Bricker, and Dworshak. (Senator Hickenlooper is on both committees.)

Also present: James J. Wadsworth, Deputy United States Representative to the United Nations; W. F. Libby, Thomas E. Murray, and Harold S. Vance, members of the Atomic Energy Commission.

The CHAIRMAN. The meeting will please come to order.

This morning the Committee on Foreign Relations is again meeting with the Senate members of the Joint Committee on Atomic Energy to continue our consideration of the Statute of the International Atomic Energy Agency.

Last Friday, Secretary of State Dulles presented the views of the Department of State concerning the importance of ratifying the treaty before us. Today we are to hear from Adm. Lewis L. Strauss, Chairman of the Atomic Energy Commission, who may wish to develop further some of the points raised in Secretary Dulles' testimony. I am sure my colleagues will have additional inquiries to address to Admiral Strauss concerning the effectiveness of the inspection and control system established by the statute, and other matters.

During our last meeting, we followed a rule limiting each member's questioning to 6 minutes. I propose to adhere to the same limit during this meeting, at least for the first round of questions. This way we will ensure that an equitable opportunity is given to all members to discuss those aspects of the statute in which they may be especially interested.

We will now hear from Admiral Strauss, if you will be so good as to proceed, Admiral.

STATEMENT OF HON. LEWIS L. STRAUSS, CHAIRMAN OF THE UNITED STATES ATOMIC ENERGY COMMISSION

Mr. STRAUSS. Mr. Chairman and gentlemen, first I would thank you for the privilege of appearing here this morning.

I am accompanied by the other members of the Atomic Energy Commission and by interested members of the staff.

THE PRESIDENT'S ATOMS-FOR-PEACE PROPOSAL

There have been nearly three and one-half years—occupied by continuous negotiation—since the International Atomic Energy Agency, which is the subject of this hearing, was first proposed by the President. I wish that I had the gift of words to recapture this morning the worldwide emotion stirred by that event. You will recall that it brought a first ray of light into the thick darkness of years of pessimism—almost of despair—that the atomic arms race could end otherwise than in a collision which would blot out millions of lives and much of the accomplishments of civilization.

The President did not present his project as a plan devoid of risk, but it was a calculated and a small risk. It was a plan which would not require us suddenly to place confidence in the good faith of the Soviets where there was no warranty whatever in experience for such confidence. The plan is unchanged in that concept.

CHANGES SINCE 1953

What has changed in 3½ years is that there has been an indefinable improvement in outlook—a revival of hope for a future in which an atomic cataclysm need not be inevitable. That change began with the announcement of the plans for this Agency. It is built upon the expectation that the agency will come into being. The still-birth of the Agency can plunge the world back into darkness.

There is another change that has come about in the same period. In 1953 uranium was still a rare commodity. A few nations controlled practically all there was of it, so far as we then knew. Discoveries of large new deposits have demonstrated that uranium is far more plentiful and more widely distributed than we ever imagined.

This availability of fissionable material and the extraordinary progress in engineering for power development has brought other nations besides the United Kingdom, Soviet Russia and ourselves into the atomic power situation and will continue to do so.

As a result of this, I would submit that, had the President never proposed the International Agency, we should be at pains now to invent it. Let me be specific. With time the operation of atomic reactors all over the world is inevitable. It can no more be prevented than one could restrict or prohibit the use of fire.

RADIOACTIVE WASTE

A byproduct of reactors is radioactive waste. This byproduct will probably some day be valuable, but presently and for the foreseeable future, it presents a huge disposal problem. Solution of the problem is necessary for public health and safety.

If these wastes are indiscriminately dumped at sea, they could spread around the world. If they are indiscriminately buried in the earth they may migrate along the plunging contours of subterranean strata with no regard whatever for the political boundaries that men and nations have scratched on the earth's surface.

The only way we can safeguard our own health and safety is by securing world health and safety. And that can only be achieved by a uniform international agreement on standards of health and safety applicable to atomic energy.

AGENCY'S RELATION TO UNITED STATES DOMESTIC POLICY AND OBJECTIVES IN ATOMIC ENERGY DEVELOPMENT

The Secretary of State already has spoken to you of the vital role of the Agency in helping us to attain the objectives of our foreign policy. I would like to deal with the relation of the Agency to our domestic policy and objectives in the development of atomic energy.

The Congress has concisely stated, in the Atomic Energy Act of 1954, the broad purposes of the United States in this respect, first:

> the development, use, and control of atomic energy shall be directed so as to make the maximum contribution to the general welfare, subject at all times to the paramount objective of making the maximum contribution to the common defense and security.
>
> And secondly—
>
> the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise.

I believe that the statute of the International Agency conforms to that mandate of the Congress. The atomic energy policy of the United States and the statute of the Agency have the same twofold objectives—first, that atomic energy shall make the maximum contribution to the general welfare and prosperity, and secondly, that it shall be directed to the promotion of world peace.

Our Atomic Energy Act and the statute of the Agency both stress the importance of research, and the development of practical applications of nuclear energy for peaceful progress. The language of our domestic law and the statute of the Agency is uniform on these points.

Under the Atomic Energy Act, the development of the peaceful atom is subject to the condition that our program must be—

> consistent with the common defense and security, and with the health and safety of the public.

Similarly, the statute of the Agency requires the International Agency to establish and administer safeguards—

> designed to insure that special and other fissionable materials, services, equipment, facilities, and information * * * are not used in such a way as to further any military purpose.

The Agency also is required by its statute to establish—

> standards of safety for protection of health and minimization of danger to life and property.

The reason for this similarity of procedures and objectives is due to the fact that the sound policies which the Congress adopted in 1954 have set a pattern for other governments in their desire to work together in developing nuclear energy for mankind's benefit.

United States proposals, based on the policies established by the Congress, were influential in the drafting of the provisions of the Agency Statute.

BILATERAL AGREEMENTS

The question has been raised in some quarters as to why—if the Agency has the same broad objectives as those of the United States program of international cooperation—there should be need for a world organization. What can the Agency accomplish that cannot be accomplished as well by the United States through its own bilateral agreements with other countries?

First of all, the Agency is not competitive with our bilateral agreements. We believe both are essential, and the United States does not propose to abandon its program of direct agreements with other countries, either when the Agency comes into existence or at any time in the foreseeable future.

To the contrary, we intend to enter into still more agreements with countries and groups of countries in order that we may strengthen and accelerate our objectives which are also the objectives of the Agency.

This is not to say, however, that there will be a duplication of activities. The task is so great and the opportunities so broad that, for a number of years, the combined activities of the United States—together with countries with which we already have or will negotiate direct agreements—and of the world Agency should all serve a constructive, harmonious purpose.

To be more specific on this point, we anticipate that the Agency will stress activities in which many nations have a direct interest, and in which the greatest progress can be made by way of multinational approach.

At the same time, through bilateral programs, the United States will be able to extend to certain individual countries cooperation which conforms more precisely to our traditional and special relationships with those particular countries. Thus the two programs will supplement each other.

For example, in regard to nuclear power, the Agency can encourage cooperative efforts by groups of nations in carrying out power development projects, standardizing designs of reactors, fuel elements and the like.

These efforts could advance the time when nuclear power is economically competitive with conventional power in various parts of the world.

TRAINING

Another area where the Agency can be of great service is that of training. Perhaps the greatest single obstacle in the way of more rapid advance in developing the peaceful atom is the shortage of skilled personnel. Many countries which might otherwise make use of atomic energy for electric power, for the fight against disease and suffering, or for improving the quantity of their harvests, cannot enjoy these peaceful benefits because they presently lack trained people. There is need for a training program on a worldwide basis, organized by the Agency to meet the requirements of the member countries.

By helping to avoid unnecessary duplication of research and by facilitating the exchange of information, the Agency will be of important assistance to the United States and other members in conserving nuclear materials and scarce trained manpower. The pooling of new discoveries under the aegis of the Agency will help us, as well as the recipients of Agency assistance.

BILATERALS

The Agency's safeguard provisions were agreed to, in international conference, by some 80 nations. The safeguards, therefore, represent the concerted wish of those eighty-odd nations. Some countries, which might be reluctant to accept safeguards, imposed by one nation, which is the case with our bilaterals, have willingly en-

dorsed essentially the same conditions when required by the International Agency in which they have a voice and vote.

The negotiations on the Agency opened an avenue for prudent and peaceful negotiations which may in time come to have an impact on international relations going well beyond any that could come from our bilateral program.

The Agency will not, of course, achieve atomic disarmament, nor was it conceived to attempt that. However, it can promote United States objectives in the field of disarmament by creating a practical working model of an inspection system, and a climate of international opinion in support of our objectives. This, we may hope, will facilitate establishment of the broader controls needed for a successful disarmament agreement.

The Agency will not trespass upon our national sovereignty in the atomic field, nor will it impinge upon our development, manufacture, and testing of the nuclear weapons of defense vital to our national security.

It will not draw upon the fissionable materials needed for our weapons program. Any fissionable materials allocated to other nations, whether under our bilateral agreements or through the medium of the Agency, will come from production after we have discharged our "paramount responsibility" of insuring the national defense and security.

However, as the President stated in his December 1953 address to the United Nations, progress in developing the peaceful uses of the atom might—

> allow the peoples of all nations to see that in this enlightened age the great powers of the world * * * are interested in human aspirations first rather than building up the armaments of war—

and that the International Agency might open a new channel for peaceful discussion of the many problems posed by this atomic age.

The President realized that if, in the course of time, this limited cooperation was successful, it could lead to the expanded cooperation necessary to solve the problems that make peace so precarious today.

SAFEGUARDS TO ENSURE PEACEFUL USES OF ATOMIC MATERIALS

Let me now turn to the matter of safeguards, to insure that fissionable materials distributed through the Agency are used only for peaceful purposes and are not diverted to military use.

I would begin comment on this matter by acknowledging that, lacking an international agency, there would still be a limited measure of international collaboration on the peaceful uses of atomic energy as a result of bilateral agreements and that only a few nations are presently in a position to offer such assistance.

Within a few years, however, we can expect to find other nations in the field, either as result of their unsupported efforts, or because of assistance from others.

The United States prudently states that it will not extend bilateral assistance unless the recipient nation agrees to guaranties and safeguards insuring that the resultant source and fissionable materials will be used only for peaceful uses.

But, in the absence of a concerted effort by the rest of the world—an effort represented by the International Agency— we cannot be sure

that other nations possessing uranium and offering bilateral agreements would impose equally stringent safeguards.

Some other nations might be motivated by opportunities for political gain or commercial advantage, and conceivably might make materials available with less effective safeguards or without real safeguards at all.

The world could then gradually drift into a state of "atomic anarchy" in which numerous countries would come to possess atomic materials with little or no control over their use. They are not really so scarce as once was thought.

Moreover, if such a situation were to develop, we would be confronted with the difficult alternative of either lowering our standards of prudent safeguards, or surrendering to others our leadership of atoms-for-peace.

That choice would be forced upon us in the absence of international standards of health, safety, and inspection because, if we were to refuse to deal with countries unless they subscribed to our standards, they would very likely be able to make arrangements with suppliers whose actions were not governed by the same stringent requirements as we would impose.

The Agency will help prevent a debasement of the standards of safeguards by uniting all nations in this common goal. Its safeguards provisions are not just a pious expression; they are a firm condition to the distribution of source and fissionable materials or any other substantial assistance through the Agency.

In sum the Agency can establish standards more effectively than any system of agreements between individual countries. These standards must be set up at the outset before the inescapable growth of the atomic power industry begins. It will be too late to attempt it after contaminants have been broadcast.

The hoped for contribution of the Agency to peaceful progress—in training nuclear specialists, exchanging basic scientific information, promoting the benefits of nuclear energy to health, industry, and agriculture, and the building of nuclear powerplants—could all come to naught if the end result of those efforts were to be an expansion of atomic military potential.

The President's initial proposal in 1953 was made after a careful determination that such an international agency would involve no undue risk to the security of the United States, and that such risk as was involved—a calculated risk—was small in comparison with the gains for peace.

The safeguards provisions of the Agency statute were drawn to conform to the President's original concept and conditions.

The statute has the basic principle that safeguards—including international inspection of facilities and accountability and control over fissionable materials—will apply to all recipients of materials and of other assistance for Agency-approved projects. It has already been noted but it will bear repetition to state that since the United States will not be requesting Agency assistance, the United States is not subject to the inspections or controls.

Nations seeking fissionable materials do not automatically qualify for such materials simply by signing the Statute and joining the Agency. Each separate project for which materials are sought must

first be approved by the Agency, and the safeguards and guaranties must be established before any material is delivered to a petitioning nation, or indeed, before support in any form is given to a reactor project.

The safeguards provisions of the statute are as comprehensive as those which have been written into our own bilateral agreements. Furthermore, we will be in a position to exert our influence in favor of strict enforcement of those controls. If the Agency should be found to be pursuing policies which, in our judgment, were less sound or responsible than those with which it began we would, of course, cease to make materials available. Recipient countries are well aware of this fact which makes our influence very great indeed.

DIFFICULTIES OF CONVERTING LOW-ENRICHMENT URANIUM INTO WEAPONS MATERIAL

The enriched uranium to be made available to the Agency by the United States will generally have a uranium–235 content not greater than 20 percent, and most of this material probably will contain only 2 or 3 percent. Such low enrichment material will be adequate for most types of power reactors.

To convert into weapons material any appreciable quantity of the low-enrichment U–235 would require elaborate and expensive isotope separation facilities involving highly developed technology and the consumption of large amounts of electrical energy. Such an enterprise could scarcely occur unnoticed.

Most importantly of all, any country possessing the technology and the resources to build and operate such plants for the enrichment of U–235 would scarcely be dependent upon the Agency for fissionable materials or even qualify for Agency assistance. A country possessing this capability would have no need to resort to bad faith. It could proceed—openly and without fear of punitive action—to produce weapons-grade material from natural uranium of which greater and greater deposits are being found and opened up. There would be no necessity for theft and subterfuge.

OUTRIGHT SEIZING OR PILFERAGE OF FISSIONABLE MATERIALS

Of course, it might be said that there always will be the risk, in extreme circumstances, of some recipient country embarking on a mad adventure and seizing outright the fissionable materials distributed to it for a powerplant.

But even in such an unlikely event, the price it would pay would be high in relation to the advantage gained. The amount of fissionable material in possession of such a country at any one time would be comparatively small; it will be limited by the provisions in the Agency's statute which prevents stockpiling.

The offending nation, after seizing the material, would still have to find a means of transforming the material to weapons grade. The amount of material for weapons which conceivably might be obtained thus would be small in comparison to the price paid, in terms of the surrender of all further Agency assistance.

Finally, on this point, there inevitably would be a considerable period of time between any such seizure of materials and the fabricat-

ing of a weapon. The world would thus be given advance warning of the offender's intentions and could take steps to counter them.

Aside from the fact that a country embarking on such a reckless adventure would find itself an outcast among the nations, plain economics also would argue against such a course.

For example, in the case of a 50,000-kilowatt power reactor, the nuclear fuel in the reactor would be worth perhaps $3 million to $4 million. But before an outlaw nation could obtain possession of that fuel, it would have had to raise and expend from $20 million to $30 million to build the reactor. Fuel will not be delivered until it is actually required for installation in a specific reactor. Thus, any outright seizure of fuel would not only bring on sanctions, including a shutoff of further Agency assistance, but the reactor would be useless; the millions spent in building it would be thrown away, to say nothing of the loss of power from the reactor and the resulting effects on that country's economy.

If then, outright seizure appears to be unprofitable, we might consider the possibilities of pilferage of fissionable materials. Conceivably, there could be such a pilferage, but on a very small scale.

Here, again, pilferage would avail a country nothing unless it possessed the financial, technical, and power resources, first to refine the nuclear fuel into weapons material, and secondly, to design and build the weapons themselves.

Bear in mind that nuclear fuels bear no resemblance, either in appearance or method of handling, to conventional fuels. If coal were being made available to other nations to operate steam-generating plants, it would be an easy matter to pilfer quantities of it from the coal pile and divert it to other purposes.

FUEL ELEMENTS

But nuclear fuels are not shoveled into a reactor. They do not come in bulk form. Uranium 235 reactor fuel is normally encased in "fuel elements" of the greatest precision in design and construction. They are generally large sealed containers, yet each individual fuel element may contain a comparatively small amount of uranium. Each element must be handled with skill and care. (See p. 94.)

Discrepancies in a fuel element's content of uranium 235, would be exposed, we believe on the basis of our extensive experience, by the measurements taken when they are inspected and inserted into the reactor. Furthermore, if fuel elements were removed or seriously tampered with, the reactor either would not operate or the effects on its operation would be detectable. Each reactor, therefore, in one way or another, has its own built-in "burglar alarm."

I should also mention the highly radioactive nature of these fuel elements once they have been exposed in a reactor. With the fuel in a reactor—in the case of an Agency project, under the direction of international inspectors—it is, in effect, securely sealed away in a vault. When the fuel elements are removed from the reactor, for instance in the refueling process, they emit such intense radiation that merely to carry one of them across a room—for 10 or 15 seconds—probably would be lethal.

Thus, for much of the time that nuclear materials are in possession of recipient countries their radioactivity will serve as an additional safeguard against clandestine diversion or pilferage. To handle them requires remote-control facilities, cranes, heavy shielding, and other devices.

In the foregoing, I have attempted to show that it would be extremely difficult for any recipient country to convert Agency-allocated materials into atomic weapons and not be detected in advance of weapons production. It is a calculated risk and a very small one.

REQUIREMENT FOR SPECIFIC AGENCY-APPROVED PROJECTS MUST PRECEDE TRANSFER OF MATERIALS TO ANY COUNTRY

I should like to mention again that we will not be required to deliver nuclear fuel to any country until the fuel is actually required for specific Agency-approved projects; that is to say, nuclear powerplants must first be financed and built, international inspectors must be available, and safeguards must be set up—all before a single kilogram of fissionable material is turned over from the amount we have allocated.

This means that the materials will be under full protection at all times. After the Agency is set up—and certainly until such time as the Agency's safeguards are established—the nuclear materials made available by us will remain in the United States until required to fuel the reactor.

You may be sure that when the time comes to actually transfer the materials we will have satisfied ourselves that the safeguards in that particular instance are sound and adequate.

Actually, the safeguards and controls will start functioning at the drawing board, beginning with the design of equipment and the reactor itself as well as for other supporting facilities and extending over a period of 3 or 4 years before the plant comes into operation.

The same safeguards are established under the statute for the chemical reprocessing of the spent fuel, the refueling of the reactor, the reuse of recovered uranium and the guarding of the byproduct plutonium produced in the operation of a reactor. Power reactors, as part of their normal operation, produce some plutonium. The recovered plutonium must either be deposited with the Agency for safekeeping or be used for peaceful purposes under continuing Agency safeguards.

Likewise, in recovering uranium 235 from spent fuel elements—that is to say, separating the still usable uranium from the fission products left after fuel burn-up—we shall have scientific safeguards against diversion and theft.

AVAILABILITY OF MR. RICHARD KIRK TO TESTIFY

Mr. Richard Kirk, one of the Commission's scientists who has had extensive experience in the production and control of fissionable materials, is here and is prepared to give you further details as to the manner in which these Agency controls would function.

Mr. Chairman, if it is not your purpose to question Mr. Kirk, he has prepared a statement which with your permission I should like to offer for the record.

It is my belief that the control provisions of the Agency statute are adequate to protect the security and the interests of the United States; I would not be before you today in this role were I not convinced of that fact.

I consider the proposed safeguards to be sound and adequate. They are substantially the same safeguards as are prescribed by the United

States in its bilateral agreements for nuclear cooperation with other countries—agreements, incidentally, which have in each instance been laid before the Congress as required by the law before they became effective.

PRESIDENT'S OFFER OF 5,000 KILOGRAMS OF URANIUM 235 "ON TERMS TO BE AGREED WITH THE AGENCY"

As you know, the President has offered to make available to the Agency after it comes into being and "on terms to be agreed with the agency," 5,000 kilograms of uranium 235, plus such additional amounts as will match the sum of all quantities of U–235 made available by other members of the Agency. This offer extends from the time the Agency is actually established until July 1, 1960.

There has been some representation to the effect that this is to be a gift.

The United States has not offered to make a gift of these materials to the Agency. The President's statement explicitly speaks of "terms" to be agreed upon. Articles 9, 11, and 13 of the Agency statute likewise provide specifically for reimbursement. In any event, the advice and authorization of the Congress would, of course, be sought before any gift were made to the Agency, or to any nation or group of nations, should such a gift appear advisable at some future date.

The President's atoms-for-peace program, unfolded to the world in his memorable address of December 8, 1953, has stirred the hopes of peoples everywhere and enhanced the international prestige of the United States.

The United States Information Service reports that, more than any other action by the United States, our program of atoms-for-peace is regarded abroad as a symbol of American sincerity and of our determination to help in building a peaceful future for all peoples.

Peoples of many lands have come to realize that the peaceful exploitation of the atom will, in the President's words:

> hasten the day when fear of the atom will begin to disappear from the minds of people, and the governments of East and West.

That concludes my prepared statement, Mr. Chairman.

Thank you for permission to present it.

The CHAIRMAN. Thank you for this illuminating statement. I assume that you are willing for us to ask questions.

Mr. STRAUSS. I am certainly willing, Mr. Chairman.

I hope I may be able to answer them to your satisfaction.

The CHAIRMAN. Would you suggest that we ask the questions now or that we first hear from Mr. Richard Kirk, to whom you referred?

Mr. STRAUSS. I think it might be helpful if Mr. Kirk spoke first, for the reason, Mr. Chairman, that his statement may answer some of these questions in advance.

The CHAIRMAN. Then we had better call on Mr. Kirk now.

Mr. Kirk, we are very glad to have any supplementary statement that you wish to make.

STATEMENT OF RICHARD L. KIRK, ASSISTANT DIRECTOR FOR INTERNATIONAL ORGANIZATIONS, ATOMIC ENERGY COMMISSION

Mr. KIRK. Mr. Chairman, in describing the technical background of the safeguards system that will apply to Agency projects, there are a number of factors that should be mentioned because they bring the problem into perspective and give it finite dimensions.

PRINCIPLES AND TECHNIQUES OF SAFEGUARDS SYSTEM NOT NEW

I think the most important is that a safeguard system is really nothing new. The term itself is relatively new but the principles and techniques are not. We have been using these same techniques in our own atomic energy operations in this country. The same safeguards provisions that are provided in the Agency Statute are also contained in our bilateral agreements.

But in addition to atomic energy activities, the same principles and techniques have been and are being used in practically every ordinary business.

The scope and intensity of the safeguards measures vary but the basic approach is the same. One criterion for the rigorousness of the system is the value of the material. The close control on silver in a silver-solder manufacturing plant is an example of this application of safeguards.

Another criterion for the system is the hazard potential of the material.

An example of this kind of safeguard is the control on narcotics. Nuclear fuels qualify under both of these criteria and the techniques used will be counterparts of measures used in similar nonatomic activities.

TRANSFER OF MATERIALS

Another factor that gives the agency safeguard job finite dimensions is the fact that materials will be provided to members only as required for definite projects. Before a project is approved, the Agency will examine the proposal thoroughly as to merit and feasibility and the Statute provides for on-the-spot examination.

In addition, the Statute provides explicitly for Agency review and approval with respect to ability to apply safeguards measures. Therefore, the safeguard job is well defined as to the quantity of material involved and the kind of operation to be examined. It is not an abstract proposition.

POWER REACTOR CYCLE

There are a number of other factors that facilitate the safeguards job. These arise from the characteristics of a power-reactor cycle. This chart depicts such a cycle, the major elements of which are fuel element fabrication, the fuel elements then go into the reactor for the production of power, then into a discharge and cooling basin, subsequently into a chemical reprocessing to recover the fuel, after which the fuel returns to the fabrication plant and thus completes the cycle.

(The charts referred to appear in the appendix.)

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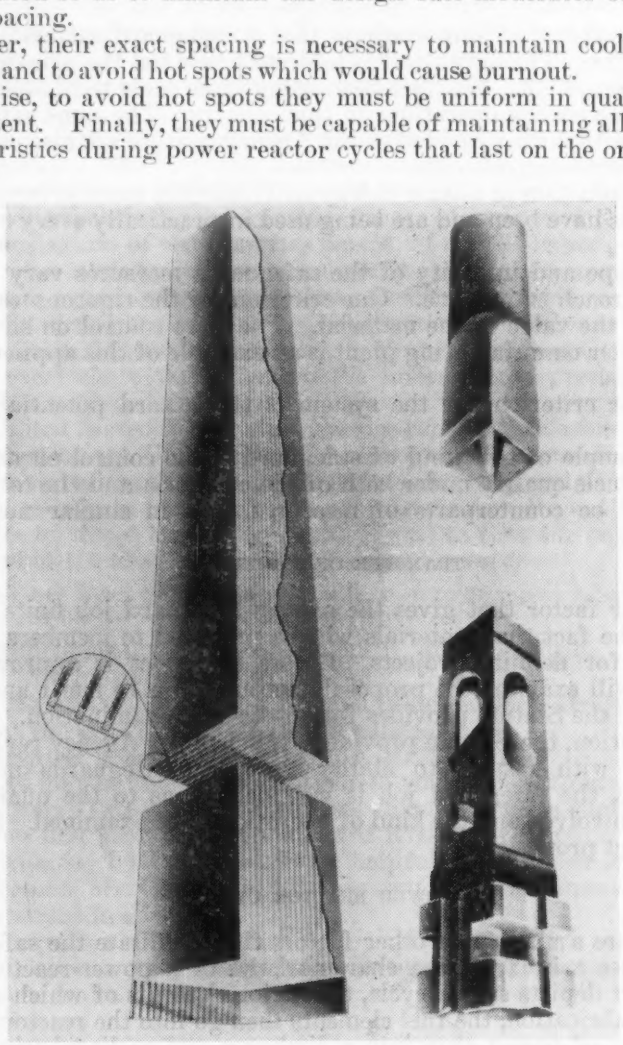
FUEL ELEMENTS

Without deprecating the care needed in constructing facilities in other parts of the cycle, it can be said that the fabrication of fuel elements is an extremely important operation. Fuel elements are exposed to high temperatures, corrosion and radiation damage during their use. Yet they must be constructed with a minimum of nonnuclear materials to reduce wasteful neutron consumption.

In addition, they are precision products because they must be carefully spaced so as to maintain the design fuel moderator ratio and lattice spacing.

Further, their exact spacing is necessary to maintain coolant flow patterns and to avoid hot spots which would cause burnout.

Likewise, to avoid hot spots they must be uniform in quality and fuel content. Finally, they must be capable of maintaining all of these characteristics during power reactor cycles that last on the order of a year.



I have here a fuel element to indicate what these things look like. This element has been split in two to permit a view to the interior of the element.

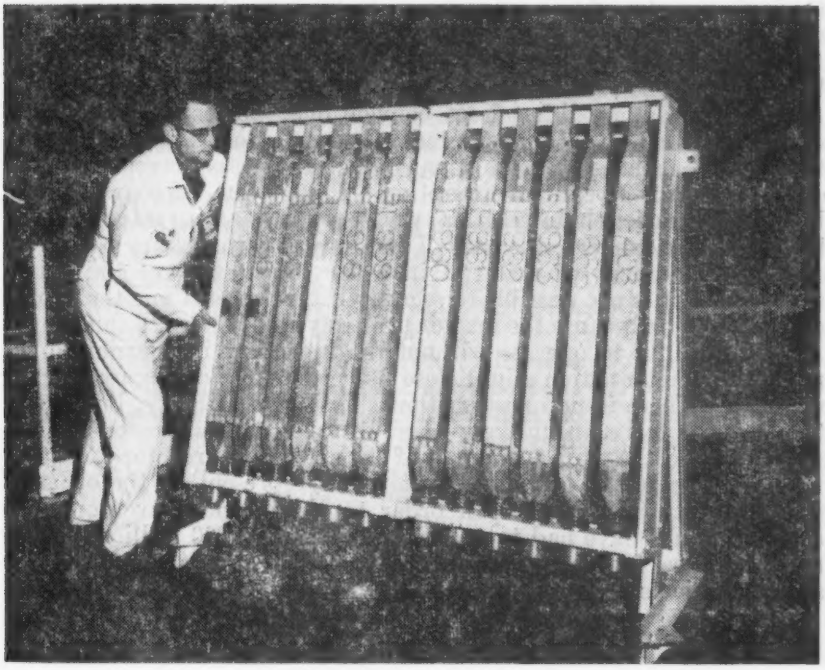
This is a model of the elements used in our materials testing reactor—and incidentally is also representative of the elements that will go into our engineering test reactor, but it is also typical of the style and size of elements used in power reactors.

It may seem ironical that this element is so large and bulky but it is because nuclear fuel is so concentrated a form of energy that it has to be spread out to permit the heat to be removed and keep the element from melting.

The energy content is frequently dramatized by saying that a small lump is sufficient to drive a ship around the world several times. However, in practice, that small lump has to be fabricated into fuel elements like these. This element is about 4 feet long and weighs about 10 pounds. Yet it contains only about one-fifth of a kilogram of uranium.

I described the great care that must be used in fabricating these elements. This is one of those factors that facilitates the safeguard job. Fuel elements can be serially numbered and can be kept track of as discrete units. The numbering is usually done anyway for process control, so that the effect of a change in manufacturing method can be correlated with its performance in the reactor. Thus, the same technique is used both for safeguards and for ordinary business purposes.

Because of the rigorous service requirements, these elements are not handled like logs or iron bars nor are they cut in two like this, but are treated very carefully. Kid-glove treatment is not an exaggeration, because perspiration from bare hands would lead to chloride corrosion. This care is a serious matter for the reactor operator who examines these elements minutely when they arrive at the reactor site. His



Rack of fuel elements.

interest represents a sort of built-in safeguard measure since the checking of the element numbers and condition will detect theft or tampering. A variation in and between fuel elements is important in the operation of the reactor. Variations would cause hot spots and they would be reflected in abnormal operation conditions. Here again, the same techniques are used both as a safeguard measure and for operational or process control. Through the point of fuel fabrication these elements can be handled by hand. Once they move into the reactor and begin producing power, any further handling must be done with the equivalent of 11-foot poles because of the radiation they emit.

The radiation depends upon the burn-up but an element coming out of the MTR, for example, radiates about 3 million R/hour. If you were to carry 1 of these elements for 20 seconds, even after it had cooled 90 days, the radiation dosage would probably be lethal.

These elements are transported in 10-inch-thick lead casks that weigh about 10 tons. The casks cost about $15,000, which is more than the value of the fuel material in them.

REACTORS DESCRIBED

Because of this radiation, fuel elements in a reactor are in the equivalent of a vault. A reactor can be described very crudely as a heavy casing containing fuel elements and surrounded with many feet of shielding materials. The casings will run to 8–10-inch thicknesses of steel. Surrounding this may be a 3-foot-thick tank of water as a neutron shield and then 5 feet of concrete biological shield.

Most reactors are designed for shutdown fuel reloading, so that elements cannot be removed without shutting the reactor down. And, for reasons of economy, power reactors don't shut down very often. Operating cycles of a year or more are typical. Now, this is pretty significant from the safeguard standpoint, because it means that, for the major fraction of the time it is in use, the fuel material is locked up in the reactor in this highly radioactive field.

Nuclear reactors differ from conventional powerplants with respect to the fuel inventory required. Coal inventories usually amount to about 3 months' consumption. Nuclear-reactor inventories are equivalent to 2–3 years' consumption. This is due, of course, to the basic physics of a chain reaction, which requires an inventory of fuel before the reactor can operate. Therefore, it is necessary to have a substantial amount of material in order to get the reactor going. Conversely, it is not possible to secretly divert several months' worth of consumption because the reactor probably would have to shut down.

This inability to operate without the inventory is relevant to the possibility that a nation might close its borders and confiscate Agency material. There is no question that this is a possibility, but it certainly seems to be an unlikely possibility for several reasons. Considering, first, the plain economics of the matter, the reactor inventory for a 50-megawatt electricity plant would represent on the order of $3 million to $4 million. In order to obtain such inventory, the country would have had to spend $20 million to $30 million for the reactor, since fuel materal will be provided only as required for specific projects.

The confiscation would terminate the supply of fuel and, therefore, the reactor would shut down, so that the $20 million to $30 million investment would be useless.

Further, because the project would have been approved only if the power were needed, the disruption in power supply would be quite serious. In addition, the enrichment level of fuel in power reactors is something like 2 to 3 percent U–235, which is not suitable for weapons.

Moving on this chart (see appendix) from the reactor station to the next one, when the reactor is shut down to change fuel, elements are removed by remote handling devices and put into cooling storage. This is usually a concrete tank or canal that is filled with water. Water dissipates the fission-product heat and is a cheap shielding material, and the elements can be inspected and handled under water. Cooling is provided for economic reasons. Elements could be processed immediately after discharge from the reactor, but the incremental radiation would necessitate more expensive facilities.

It is cheaper to let the radiation decay in cooling basins than to build the more costly processing plants. The radiation decreases rapidly at first, while the short-lived fission products decay, and then diminishes in its rate of decay.

This cooling is, of course, a relative matter. These elements, even after 2 or 3 months in the cooling basins, are still very radioactive and must be handled with remote devices and have to be transported in massive, shielded casks to the chemical-processing plant, which is the next step in this cycle chart.

THE CHEMICAL PROCESSING PLANT

The purpose of the chemical-processing plant is to recover the unused fuel and separate it from the fission products and plutonium. The usual method is to dissolve the fuel elements in acid and then use solvent extraction for the purification and recovery steps. These operations are carried out within shielded canyons by remotely controlled equipment, because of the radiation present. It is not until the end of the process that it is safe to use more conventional means of processing. Even then, the plutonium must be handled with special care because of its toxicity.

A chemical-processing plant is a complex and substantial facility. It is massive because of the shielding required. It is an engineering nightmare because piping, valving, and equipment must be incorporated in this massive structure and must be constructed to permit process modifications. Once the piping is in, imbedded in concrete, it is there until the plant is torn down. All operations are performed by remote control, and equipment must be designed to be as trouble free as possible since, once the plant has operated, it is highly radioactive and any maintenance work becomes a major operation. The radiation decomposition of the solvent requires it to be purified regularly, so that the degradation products do not interfere with the preferential extraction process. Uranium is extracted from the solution, while plutonium and fission products are held back by adjustment of oxidation state and acidity. Several similar cycles are required to achieve decontamination. The building is zoned and pressure dif-

ferentials maintained on the air supply, so that any leakage which might carry radioactivity is inward and discharges through tall stacks equipped with elaborate filters.

In spite of the complexity of the process and plant, recovery efficiencies are measured in the 99.9-percent range, with the balance going along with the fission products as unrecoverable material. I mentioned earlier that such a facility is a substantial one. A plant capable of handling the throughput for 1 million kilowatts will cost on the order of $20 million. Therefore, plants of this kind are not likely to be constructed except in countries with sufficient industrial capability to construct and utilize substantial blocks of nuclear power.

The chemical processing completes the power-reactor cycle. The recovered uranium is returned to the fuel-fabrication plant for reuse. Eventually, the plutonium will do likewise, but meanwhile it will go into Agency storage. The fission products either go into storage or are separated and packaged for use as radiation sources.

THE POWER CYCLE PROVIDES SAFEGUARDS

I have described these operations as steps in a cycle. The fact that it is a cycle is significant from the safeguard standpoint, because it means that we are concerned with an integrated operation which has a number of check points from which data can be correlated. What happens in one part will show up somewhere else, and this constitutes a sort of built-in safeguard.

The quantitative relationships of a power cycle will vary, of course, with particular designs, but a typical system will include a 3-month fabrication cycle, a reactor cycle of a year or year and a half, a 3-month cooling period, and a 3-month chemical-processing cycle. Since these periods are indicators of the location of inventories of material, it is evident that most of the inventory is in the reactor most of the time. Also, the material is in a highly radioactive condition about 85 percent of the time.

Because the operation is a cycle with a number of check points on the flow of material, it is possible to maintain a material balance. Diversions would make such a balance impossible and so removals tend to anounce themselves. The fact that most of the inventory is in the reactor and has to stay there and be used for its intended purposes makes diversions self-signalling. The Agency is not limited, however, to awaiting such signals since the safeguard provisions of the statute provide for complete and continuing coverage of the entire cycle from the beginning of a project. It provides for on-the-spot inspection, for access to any place or person involved in the project, and for confirmatory measurements.

MATERIAL ALLOCATION FOR SPECIFIC PROJECTS

The Agency will allocate material only for specific projects and only in amounts required for those projects. This is a matter of self-interest because each Member will be concerned that fuel is used efficiently. This concern will apply not only to attempts at diversions but also to sloppy operations, which, therefore, cannot be used to cover up attempted diversions. Accordingly, the accounting for material

will be a matter of self-interest to all Members with regard to fuel conservation, as well as the safeguarding aspect.

These same considerations are pertinent insofar as the amount of material in the possession of a country at any one time. If we take a 50,000 kilowatt electric reactor, it will require an operating inventory of about 500 kilograms U-235 and will burn about 60 kilograms per year. Now this has a significance for several reasons. First of all, while the burnup over a 20-year period totals 1200 kilograms, this material need be delivered only as required and any diversions from such deliveries or from the recycling fuel means that the reactor has to shut down for lack of fuel. Therefore, unless this makeup material is used for its intended purpose, the reactor shuts down and signals the removal. Likewise, the inventory in the reactor has to remain there and be used for its intended purpose or the reactor shuts down and signals the removal. Further, the amount on hand at any one time is less than a third of the total required during the life of the project. And, as I mentioned earlier, in order to obtain this quantity, the country has had to invest 20 to 30 million dollars for the reactor.

SAFEGUARDS JOB OF MANAGEABLE PROPORTIONS

Now I have described these various characteristics of a nuclear power system that make it difficult to divert material, in order to indicate that the safeguards job is one of manageable proportions and is facilitated by these characteristics. We know a good bit about the facilities and processes involved. We know what kinds of things to look for, where to look for them and how to correlate them.

We also know that it is not realistic to speak of accounting for every single gram of material. In the first place, measurement methods always have a limit of accuracy. For example, you might know the weight of a single 1-kilogram piece of uranium to within a gram. But given two such pieces, you could not know the total to within 1 gram. If you wanted to weigh it more accurately, you could cut the piece up and weigh the several pieces but when you put it back together again in order to use it, you'd be right back where you started. As larger weights are involved, the inability to weigh to within a specified weight limit is greater because the relative precision required has increased.

In addition, it wouldn't be practical to try to measure down to the gram. In the reactor cycle I described, it would be necessary to physically measure everything there if absolute accounting were attempted. The amount of fuel present after the reactor has operated for a while can be calculated but not to the gram. To measure the fuel content, you'd have to shut the reactor down and process the elements to extract the fuel. This would mean that the purpose of the project would be defeated. Moreover, it would be necessary to clean out the chemical processing plant completely, washing out every pipe and vessel and processing those solutions. Otherwise, the holdup in the plant could only be calculated. Then the plant where those solutions were processed would have to be cleaned out. And, the measurement errors would make it impossible to account absolutely for every gram, anyway.

When I speak of measurement errors, I am referring to the plus or minus sign that shows up in every technical report. This is not a

matter of carelessness. On the contrary, it reflects the care to state exactly and honestly what the uncertainty limits are in the measurements reported or in the conclusions presented. Even though the measurements are on minute quantities, there is always a limit on the measurement method. A laboratory analytical balance may weigh to the fourth decimal place of a gram, but that simply means that the limit of measurement is there. The value must be reported in four figures with a plus or minus applied to the last place. These individual pluses or minuses are consolidated in a material balance into one number which may be labeled "book adjustment" or it may be called "unaccounted for." The fact that it's called "unaccounted for" does not mean that material has been lost or stolen. It means simply that a more precise statement would be incorrect and meaningless and dishonest in the scientific sense.

The plus or minus factor is affected also by the kind of situation I just described, of trying to determine the amount of material that is in the reactor. Since it's not practical to shut the reactor down, pull everything out and measure it, we have to calculate what's there. Because the reactor inventory is large relative to the system through-put, the plus or minus applicable to the reactor inventory calculations has an effect on the overall plus or minus for the system. Again, it doesn't mean that the material represented by the plus or minus has been diverted but simply that we cannot honestly state, in the Newtonian sense, that we "know" the value exactly.

How large this plus or minus factor is depends upon the individual case and the safeguards measures employed must be tailored to the circumstances. While a large power reactor involves large quantities of material and a comprehensive safeguards system, a research reactor is a different matter and would not require the same rigorous measures. Thus, there is no single value that can be given for this plus or minus factor. We believe, however, that it is important to point out that the overall long-term ability to account for material associated with Agency projects is such that the plus or minus factor can be approximately 1 percent or less.

In conclusion, I would like to reiterate the point that neither the principles nor techniques of applications of safeguards are new. They have just been called something else. I mentioned earlier that fuel elements are serially numbered so that the effects of changes in manufacturing methods can be correlated. Serial numbering for this purpose is used in practically all hard goods and household appliances. We sometimes use this kind of safeguards measure in research. In a program of fuel element development, we keep track of experimental elements by numbering them and following them through their life. We use safeguards measures in practically every industrial operation to keep track of inventories, to maintain operating efficiencies in the various steps, to insure quality of product, to keep losses and costs down. There, we call it process control or inventory control or quality control. We use the same techniques for financial control, including our own personal finances, by checking on income and outgo and change in inventory or balance.

A safeguards system really is a combination of these widely employed accountability techniques and power, the power to investigate and the power to enforce. All of the principles of accountability and

the power to apply and enforce them are provided in the Agency statute.

CHAIRMAN'S COMMENTS ON PRESENTATIONS

The CHAIRMAN. Mr. Kirk, we are very grateful to you for this splendid outline of the situation.

Admiral, it seems to me that in asking questions it might be well, if you agree, to direct all the questions to you and you can refer such of them as you wish to Mr. Kirk.

Mr. STRAUSS. Thank you, Senator.

The CHAIRMAN. If I may comment on my impression of the impressive statements made by you and Mr. Kirk, it is this: Tremendous advances have been made in the sciences, and we should not be confident that further, even greater, advances may not be made in the near future, and so there are certain risks involved in that very fact.

While it may be very elaborate now, with greater expense and greater labor to produce the results, a few years from now, or a year from now, there may be newer methods discovered whereby the manufacture may be made cheaper and safer, whereas now in many places it is very dear and very dangerous.

I would suggest that we in turn ask you questions, if that is agreeable with you, and limit them to 6 minutes each of questioning on the first round.

HOW EFFECTIVE ARE CONTROLS?

If I may begin, it would seem that the heart of this treaty is the system of control and inspection which it institutes to prevent misuse of fissionable materials for military purposes.

Just how effective are these controls? Are they adequate assurance against misuse, and is it not possible that the member can always make use of the first allocation of fissionable materials to manufacture atomic weapons before any inspection can be made?

Mr. STRAUSS. Mr. Chairman, my response to that would be this: We have no experience as of the present time with the provision of fissionable materials to a foreign country with the exception of the reactor which we sold to the Swiss Government 2 years ago, but it is our best opinion and belief that the measures which we have provided in the bilaterals and which are paralleled in the statute of the Agency will provide that degree of control and inspection that will insure that the material which is furnished for power and research reactors cannot be diverted to military purposes.

The CHAIRMAN. Cannot be diverted?

Mr. STRAUSS. That is our belief, sir, that is short of their seizure, as has been mentioned in my initial statement, that a country might elect to disregard its obligations and seize the materials in the reactor, and then we have attempted to describe to you the reasons why that seizure would be detected when it occurred, and that would be a very considerable time before the material could be fabricated into weapons

The CHAIRMAN. According to the present state of our knowledge, that may be true, but that may be changed at any time, may it not?

Mr. STRAUSS. I would be the last, Mr. Chairman, to scout the suggestion that science will not solve many of the questions that now

seem to us to require long periods of time, great radiation hazards and great expenditures of money, but we know of no method of doing it at the present time.

COMPARISON OF INSPECTION AND CONTROL FEATURES UNDER AGENCY STATUTE AND UNDER BILATERALS

The CHAIRMAN. How do the inspection and control features of the Agency statute differ from the inspection and control features of the United States bilaterals?

Mr. STRAUSS. I am informed, Senator, that there is no difference except for the fact that some of our people feel that the language in the Agency statute has improved somewhat upon the language in our bilaterals, but the effects sought to be achieved are identical.

Is that responsive to your question, sir?

The CHAIRMAN. I think it is as responsive as any answer you give.

Mr. STRAUSS. I could if you wish read the provisions in a typical bilateral and read article 12 of the statute. They are somewhat long. Or I could submit them for the record as you might prefer.

However, as I say, they march together. Would you like to have me read it? (See p. 72.)

The CHAIRMAN. No, I don't think you need to go into that. It is more important to ask other questions and I won't ask any more myself.

IS THE SOLE FUNCTION OF THE UNITED STATES TO SUPPLY MATERIALS?

The CHAIRMAN. Mr. Anderson, do you have any questions?

Senator ANDERSON. I would like for you to refer to page 13 of your statement (see p. 88) where you say the statute has basic principles of safeguards which apply to all recipients of all materials and other assistance for Agency-approved projects.

You note that the United States will not need Agency assistance and so will not require Agency control.

Mr. STRAUSS. That is right.

Senator ANDERSON. Do I understand the sole function of the United States will be to supply materials?

Mr. STRAUSS. No, Senator. I think we will also be supplying scientific information and we will be receiving from the Agency and the other countries that are adherents to the statute information from them.

I might also point out that some of the other member countries of the Agency will be producing other materials that are essential to an advanced-power program such as thorium, beryllium, et cetera, and that conceivably at a later period we might avail ourselves of those through the Agency, although that has not been considered as a reason for our participation.

Senator ANDERSON. Now when we do receive those, then we would be subject to inspection, would we not?

Mr. STRAUSS. If they were used in specific power reactors they might, and therefore I do not believe that we would avail ourselves of that opportunity unless we had no other means of coming by them.

EXCHANGE OF SCIENTIFIC AND TECHNICAL INFORMATION

Senator ANDERSON. The statement is that if we request any Agency assistance. One of the things proposed in the function is to foster the exchange of scientific and technical information on the peaceful uses of atomic energy. Do I understand we are only going to be sending out and not receiving?

Mr. STRAUSS. The exchange of information does not involve the acceptance of inspection or controls.

Senator ANDERSON. Then that would not be regarded as assistance?

Mr. STRAUSS. Not in the sense that the provision of fissionable material would be, Senator.

Senator ANDERSON. Is inspection only on the receipt of fissionable material?

Mr. STRAUSS. That is my understanding, in respect to agency projects.

Article 12 of the statute in paragraph (a) reads:

> That with respect to any Agency project or other arrangement where the Agency is requested by the parties concerned to apply the safeguards, the Agency shall have the rights and responsibilities that are outlined in the subsequent paragraphs.

Senator ANDERSON. I don't find it confined to fissionable material. If we exchange information we are subject to inspection, aren't we?

Mr. STRAUSS. That is not my understanding, Senator, and we would not in any event request information or be a petitioner for information.

The information that is exchanged between countries that are participants of the Agency will be information that is available for the world.

Senator ANDERSON. If we were to exchange information, wouldn't we have to ask somebody to exchange with us?

Mr. STRAUSS. I don't think that is so, Senator. I think that information will be provided to the Agency on a voluntary basis.

Senator ANDERSON. Then we will only supply fissionable material to it and will not participate in these programs in the exchange of information, exchange of students.

Mr. STRAUSS. No; we will be doing a number of things. We will be supplying part of the operating expenses of the Agency.

Senator ANDERSON. Yes, I understand that.

Mr. STRAUSS. We will undoubtedly be supplying inspectors to the Agency or helping them to obtain inspectors. We will be supplying to the Agency, to the extent that such information is available to us and is declassified, information that will facilitate the peaceful development of atomic energy.

QUESTION OF REIMBURSEMENT FOR FISSIONABLE MATERIALS

Senator ANDERSON. When we supply materials through the Agency do you have any idea how much this program will cost?

Mr. STRAUSS. That, Senator, would require a longer look ahead and would depend on how long a time you have in mind.

Senator ANDERSON. It will involve 11,000 pounds of fissionable material?

Mr. STRAUSS. You are speaking of the first mention of 5,000 kilograms?

Senator ANDERSON. Yes, sir.

Mr. STRAUSS. That is correct, Senator, and we would expect to be reimbursed for that, and that that would be made available and would be placed in powerplants in approved Agency projects as they came into existence, not at the date of the approval.

Senator ANDERSON. We do expect to be reimbursed then?

Mr. STRAUSS. At the present time there is no proposal before us for a gift.

Senator ANDERSON. We do expect to be reimbursed then?

Mr. STRAUSS. I expect that we will be reimbursed but I can't——

RESERVATION

Senator ANDERSON. Then there would be no objection to a reservation that provided for reimbursement, would there?

Mr. STRAUSS. Senator, if you are asking me the question of whether I would object to a reservation, I cannot answer that. I assume that the Senate in its wisdom will decide what reservations it is going to make. The President has not indicated any intention of making a gift or a contribution without reimbursement of any fissionable material.

Senator ANDERSON. That being true, then, there certainly would be no objection to safeguarding that provision, would there? There have been statements that this might cost from $150 million to $250 million to supply this initial amount?

Mr. STRAUSS. Yes, sir. I think those statements however have been made without foundation, since, when the President's statement was made on October 26 last, he said:

> To enable the International Atomic Energy Agency upon its establishment by appropriate governmental actions to start atomic research and power programs without delay, the United States will make available to the International Agency on terms to be agreed with the Agency 5,000 kilograms of the nuclear fuel uranium 235 from the 20,000 kilograms of such material allocated last February by the United States for peaceful uses by friendly nations.

Senator ANDERSON. I am told my 6 minutes are up.

The CHAIRMAN. Thank you.

Mr. Wiley, any questions?

Senator WILEY. Yes, Mr. Chairman. I must say that I more or less agree with the old saying that fools will enter in where angels fear to tread. Today I have been listening to a great deal of English, much of which I did not understand, I will admit.

It is no fault of the one who produced it, but it is due to the fact that as a Senator I have not been educated along this line. I have a few questions.

First, when Senator Mansfield left, he left two questions with me and asked that I ask them.

WHAT WOULD BE RESULT OF A REACTOR EXPLOSION?

What would be the result radioactively speaking if one of the reactors were to explode?

Mr. STRAUSS. Senator, we have now gained operating experience in the United States amounting to about 100 reactors years of operation. We have never had a reactor explosion or a reactor accident that involved a fatality or affected any area off the site of the reactor

I would like, with the chairman's permission and yours, to refer this question to the scientific member of the Commission, Dr. Libby, because my own belief is that a reactor explosion in the sense that I think of an explosion, is not possible.

May I refer that to Dr. Libby, Mr. Chairman?

The CHAIRMAN. Certainly.

Mr. LIBBY. Admiral Strauss is correct in so far as I know, Senator, in saying that a nuclear explosion of a reactor is not possible, so when you speak of explosion, you speak of a chemical type explosion, something that we know more about than we do about nuclear explosions, so we are learning a lot about chemical explosions in nuclear surroundings.

With our understanding of chemical explosions and our experience, which is very great, we design what is known as containment vessels, steel spheres which are designed to contain the explosion, and so I believe that the answer to your question is that very little would happen off site, outside of the immediate vicinity of the reactor, and that the threat and hazard from the reactor explosion is very, very small.

Now it is of course possible to imagine conditions under which, for one reason or another, the containment vessel ruptured, in which case the potential hazard is large, but this large potential hazard is accompanied by a very, very small probability. We cannot say that it is zero, but we can say that it is very small.

Senator WILEY. Thank you very much.

DOES ATOMIC ENERGY COMMISSION FAVOR PROPOSAL?

Now, Admiral, is the AEC in favor of this proposal?

Mr. STRAUSS. Senator Wiley, the statute is not an Atomic Energy Commission document and has not ever been submitted by anybody of the Government to AEC, but the safeguard provisions which are a specific AEC interest and could conceivably be a specific AEC responsibility, have been submitted to the AEC in their initial drafts as early I believe as January 1956, and have been continuously before us, and of course the statute itself was published in October of last year, and everyone has had copies of it and is familiar with it.

Senator WILEY. Would you say then that the AEC is in favor of the proposal?

Mr. STRAUSS. That is my belief, but since they are all here, since the Commission is all here, you might care to confirm that.

RADIOACTIVE WASTE

Senator WILEY. On page 3 of your statement you said, speaking about wastes:

> If they are indiscriminately buried in the earth they may migrate along the plunging contours of subterranean strata with no regard whatever as to the political boundaries that men and nations have scratched on the earth's surface. (See p. 84.)

That is a demonstrable fact, is it?

Mr. STRAUSS. It is a demonstrable fact, sir, that there are currents and waterways and movements of material that applies below the surface of the earth, and we are very careful in the disposal of the wastes

from our own plants to see that they remain where they are placed, in order not to jeopardize other communities, and also because, Senator, at some date in the future, and I hope not too distant future, these items which we now denominate as waste may become very valuable.

DEVELOPING ELECTRICAL ENERGY FROM ATOMIC ENERGY

Senator WILEY. You spoke also about an analogy in regard to nuclear power. You said—

> The agency can encourage cooperative efforts by groups of nations in carrying out power development projects, standardizing designs of reactors, fuel elements and the like.
>
> These efforts could advance the time when nuclear power is economically competitive with conventional power in various parts of the world. (See p. 86.)

Have the British arrived at practically that point now?

Mr. STRAUSS. No, sir, I do not believe that there is any atomic powerplant of any sort that is today competitive with electrical energy developed either by falling water or the burning of conventional fuels, but this sentence, Senator, was meant to indicate this: there has been formed in Europe a group of six nations styling themselves EURATOM for the purpose of mutually developing electrical energy from atomic energy.

To the extent that countries work together on this program, they standardize plants, they standardize fuel elements, they standardize all the procedures connected with it, and through standardization and the multiplication of plants of one kind, we can expect one successful attack on costs.

Senator WILEY. These were Mike Mansfield's questions that I asked. I have one other question.

UNITED STATES NATIONAL SOVEREIGNTY IN ATOMIC FIELD

You said in your statement (see p. 87)—

> The Agency will not trespass upon our national sovereignty in the atomic field, nor will it impinge upon our development, manufacture and testing of the nuclear weapons of defense vital to our national security.

You are satisfied that that is a statement of fact?

Mr. STRAUSS. I am satisfied that that is a statement of fact, Senator, and should any change ever occur in the attitude of the agency, I would assume that the United States would withdraw from it.

Senator WILEY. And is it your conclusion, based upon a study of this whole subject, that there would be more danger in not entering into such an arrangement than there would be in doing so?

Mr. STRAUSS. Senator, I believe that international standards for the protection of health and safety in the development of atomic energy reactors around the world is an absolute requirement.

Senator WILEY. Thank you, sir.

AVAILABLE SUPPLY OF FISSIONABLE MATERIALS

The CHAIRMAN. Do you have some questions, Mr. Aiken?

Senator AIKEN. Yes.

Admiral Strauss, I have been trying to condense in my mind the statements that you and Dr. Kirk made this morning, and among other

things, I come up with certain conclusions which you may be willing to confirm.

The first is that fissionable material is now in such supply from such diverse sources that any nation cooperating wtih the supplying nation on the terms of that supplying nation of course could get this fissionable material anyway?

Mr. STRAUSS. I think that is true to a limited degree today, Senator, and that it will be an increasing capability with the passage of time, unless we are prepared to make very large preclusive purchases, and buy all the uranium produced by countries that are in the business, at prices that will make it impossible for other nations to acquire it.

UNLIKELIHOOD OF MATERIAL CONTRIBUTED TO THE AGENCY BEING USED FOR MILITARY PURPOSES

Senator AIKEN. The next conclusion is that contributions for peaceful uses will probably have no effect on any nation's potential use of fissionable material for destructive purposes?

Mr. STRAUSS. Contributions through the Agency?

Senator AIKEN. Contributions for peaceful uses you are satisfied will have no effect on any nation's potential usage of fissionable material for destructive purposes?

Mr. STRAUSS. I mentioned the condition of seizure by an overt act on the part of a country. I cannot think, Senator, of any other basis on which it could happen. Of course, as set forth in my formal presentation, one of the objectives of the United States in proposing the Agency is to siphon off materials for peaceful purposes, thus reducing the amounts available for destructive purposes.

Senator AIKEN. The next question concerns the belief that any diversion for destructive purposes of material contributed for useful purposes would have to take place before the material were put into the reactor. After it was once set in action, it would be difficult then to divert any of the material, after it had once been installed?

Mr. STRAUSS. Yes, Senator, that is my belief because, as Dr. Kirk has described, the handling of this material after it has operated in a reactor for a short time is impossible without remote control equipment of great complexity.

Senator AIKEN. It would be both dangerous and difficult?

Mr. STRAUSS. That is right.

Senator AIKEN. To divert any of it after it had once been put into use?

Mr. STRAUSS. That is right, sir.

THE AGENCY AS A SAFEGUARD AGAINST ATOMIC WAR

Senator AIKEN. My last question is this. Is it your opinion that establishment of an international agency would actually prove to be a greater safeguard rather than added risk insofar as an atomic war might be concerned?

Mr. STRAUSS. I am convinced of that belief, Senator. I think the opening of countries to inspection is a very important safeguard.

Senator AIKEN. In other words, the safeguards outweigh the risks?

Mr. STRAUSS. Very much so in my opinion.

Senator AIKEN. That is all, Mr. Chairman.

ELIGIBILITY OF COMMUNIST SATELLITE COUNTRIES

The CHAIRMAN. Mr. Smith?

Senator SMITH. Yes, Mr. Chairman, I have some questions. Mr. Strauss, do you contemplate including Communist satellite countries in the Agency?

Mr. STRAUSS. If Communist satellite countries have already initialed the Agency statute, and I think 1 or 2 of them have already ratified, and if they produce projects approved by the agency and open their countries to continuous inspection they are as eligible for assistance as any others. This statute makes no distinction.

Senator SMITH. They have to meet your safeguard requirements?

Mr. STRAUSS. And be open to inspection.

Senator SMITH. Take a case like this. Suppose the Agency is set up and we allocate 5,000 kilograms as you mentioned in your testimony, and they begin to use it. Then suddenly there is submitted an amendment to which we object, but it gets the necessary two-thirds vote.

My question is, under those conditions have we lost control of the 5,000 which we have donated, or at that point do we withdraw and take with us our donation?

Mr. STRAUSS. Senator, in the first place, as I have said, it is not to be donated.

Senator SMITH. No, not to be donated.

Mr. STRAUSS. It is to be sold and the price at which it is to be sold is calculated to return us our cost including the depreciation on our fixed investment in facilities. It is conceivable that that could happen by assuming that a majority, a sufficiently large number of those participating in the Agency, would settle for that and for no further American participation or material.

I can't conceive of why they should reach any such conclusion, but it is perfectly possible that they might.

Senator SMITH. You mean they might decide to keep the 5,000?

Mr. STRAUSS. But even if they do that, they are still subject to Agency control and inspection, but it would mean that they would get no further assistance from the United States obviously.

Senator SMITH. Obviously not. I have one further question. It is true that we would have lost control of the 5,000 kilograms?

Mr. STRAUSS. The Agency would still have control of it but once it is allocated to the Agency it ceases to be in United States control except to the extent that our influence in the Agency is a dominant influence which I believe that it is today, and which I believe that it will continue to be.

BILATERAL AGREEMENTS

Senator SMITH. My next question is, you have testified already that the safeguards of the statute are practically identical with the safeguards in the bilaterals.

Have we had any experience with bilaterals to see whether these safeguards are really effective?

Has there been any case where we have had to test the safeguards?

Mr. STRAUSS. No, Senator, for the simple reason that, as I stated, the only place at the moment where we have provided fissionable

material that is already located outside of the United States is in Switzerland.

Senator SMITH. You mentioned Switzerland?

Mr. STRAUSS. That is right.

Senator SMITH. There has been no danger of any violation there?

Mr. STRAUSS. In the first place there has been no danger, in the second place we have seen it and in the third place the amount is quite small, but with the passage of time, since we have some eight-power bilaterals now in existence, and since plants will presumably be built on the strength of those bilaterals, I would say within the next 3 to 5 years we will have fissionable material that originated here in the shape of fuel elements made by American contractors in reactors in other countries, and we will be inspecting those.

Senator SMITH. You said there are eight such bilaterals?

Mr. STRAUSS. There are eight in existence today, and there are a number of others in process of negotiation which, when completed, when certified by the President as being in the best interests of the United States, will be sent to the Joint Committee and they will remain with the Joint Committee for 30 days before they become binding.

Senator SMITH. I think you have testified that there is no competition between our bilaterals and the Agency's operations, and there is no reason for any complications due to the fact that we might have bilaterals with certain countries and agency relations with these countries?

Mr. STRAUSS. That is my belief, Senator. I think they are complementary, not competitive.

DEGREE OF ENRICHMENT OF FISSIONABLE MATERIALS TO BE HANDLED BY AGENCY

Senator SMITH. I think you answered this question in your testimony but I will ask it again. What do you estimate would be the amount of the enrichment of the fissionable material to be handled by the Agency in agreement with the recipients?

Mr. STRAUSS. The information which I received from our technical people on that subject is that the bulk of these power reactor concepts will probably operate on a material enriched 2, 3 or 4 percent.

Senator SMITH. At one place in your testimony I think you said it would not be greater in any case than 20 percent?

Mr. STRAUSS. We have taken the position that on the basis of our experience, that material enriched in U–235 below 20 percent is not of weapons quality.

Senator SMITH. That is what I wanted to get at.

Mr. STRAUSS. Yes, sir.

Senator SMITH. You can go up to 20 percent. You don't intend to, but if you go up to 20 percent it would not be of military quality?

Mr. STRAUSS. Below 20 percent it is our conviction that that is so.

Senator SMITH. The next question is this: As an atomic fuel becomes burned up in use does not a natural control exist over violators of Agency agreements by the power to curtail any new shipments?

Mr. STRAUSS. Yes, sir, that is the great built-in control that we have over this situation.

All of our friends desire our continued friendship and our continued assistance, and it is inconceivable to me that they will sacrifice that prospect for any purpose whatsoever.

Senator SMITH. I thank you.

My time is up, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. Hickenlooper?

UNITED STATES-JAPAN BILATERAL DISCUSSIONS

Senator HICKENLOOPER. Thank you, Mr. Chairman.

Chairman Strauss, I have many questions for which 6 minutes is not sufficient, but I will ask 2 or 3 here.

With respect to the fact that the Agency is not competitive with our bilateral agreements, it comes to my mind that Japan has already told the world that she isn't going to discuss bilateral agreements with us until she sees what kind of a deal she can get out of the International Atomic Energy Agency, which would indicate to me that it is competitive, or they expect it to be competitive.

Mr. STRAUSS. Senator, there have been a number of statements that have appeared in the press as to the Japanese attitude, but the only official attitude that we have is that we are discussing bilaterals with them.

Senator HICKENLOOPER. I am just going on newspaper statements that the Japanese officials have said that they are not actually going to finalize any bilateral with us until they can find out what is the best deal they can get out of the International Agency if it is set up.

Mr. STRAUSS. There is, as you are aware, a bilateral agreement in effect with Japan at the present time between Japan and the United States for research reactor, and I suspect, Senator, that the attitude of the Japanese is much more likely to be controlled by the question of whether the reactor that they will purchase will be a British or an American type reactor, and certain aspects of the guaranties that are to accompany that transaction.

QUESTION OF ATOMIC WEAPONS FABRICATION

Senator HICKENLOOPER. One question with respect to the question asked by Senator Aiken about the possibility of countries that are beneficiaries of this program, members of the Agency, being able to make weapons.

I don't quite follow the reasoning in these presentations this morning. I ask you if it is not possible that the knowledge they will gain in the handling of atomic materials and operating reactors and things of that kind would not put them a substantial degree down the road toward the knowledge pointing to fabrication of weapons.

Mr. STRAUSS. Senator, I think it is clear that knowledge gained in the handling of an atomic energy program will certainly be of use to a nation that contemplates a weapons program, just as instructing them in physics would be.

On the other hand, there is no direct connection between a reactor program and a weapons program as such, as I am sure of course you know.

Senator HICKENLOOPER. I think, generally speaking, that is true in my understanding of it, but I was merely attempting to point out that all the information they gain is a step toward the final fabrication of a weapon, regardless of whether it goes all the way or not.

Mr. STRAUSS. Almost any help we give them, be it economic, be it educational will be of help in a weapons program if that is their end object.

URANIUM ENRICHMENT

Senator HICKENLOOPER. In the event that it is contemplated that the enrichment of this uranium will be only 2 or 3 percent, what is the underlying reason for making the offer of availability of 5,000 kilograms of 20 percent enriched uranium?

Mr. STRAUSS. That was in order to measure the total amount, Senator. If this had been stated, for example, in terms of 2 or 3 percent, the figure of 5,000 kilograms would have been multiplied.

If one were mentioning it in terms of 100 percent enrichment, it would be yet another figure. The figure of 5,000 kilograms was tied to the 20,000 kilogram statement which had been made in February of the preceding year in order to indicate that it was one-fourth of that amount.

Senator HICKENLOOPER. Then do I understand that if we make available to the agency uranium enriched, let's say 2 or 3 percent, that the kilograms of uranium, that is the total weight, would be substantially in excess of that?

Mr. STRAUSS. That is right, Senator.

Senator HICKENLOOPER. If the enrichment were 2 percent, then it would be the equivalent of 50,000 kilograms of uranium?

Mr. STRAUSS. That is correct, Senator. The tonnage would be very much increased.

(The Atomic Energy Commission subsequently supplied the following information:)

MAY 17, 1957.

Hon. B. B. HICKENLOOPER,
United States Senate.

DEAR SENATOR HICKENLOOPER: You have requested information on equivalent amounts of U–235 at concentrations of 20 percent and 2 percent, in connection with the 5,000 kilograms of U–235 which the President stated on October 26, 1956, will be made available to the International Atomic Energy Agency on terms to be agreed. That 5,000 kilograms is part of the 20,200 kilograms of U–235 which the President announced on February 22, 1956, will be available for distribution outside the United States for peaceful purposes. The 20,200 kilograms is, at present, the maximum permitted reduction in output of highly enriched uranium from our gaseous diffusion plants resulting from the distribution of enriched uranium of any U–235 concentration for peaceful uses abroad.

The simplest way to evaluate the effects of withdrawing materials of various concentrations from the gaseous diffusion plants is to consider the dollar values of such materials according to the price schedule. That schedule is computed in such a way that equal dollar values of material withdrawn at any concentration mean equal reductions in the output of highly enriched uranium.

According to the price schedule publicly announced by the AEC on November 18, 1956, the price per gram of U–235 content is $17.07 at a U–235 concentration of 90 percent, $16.12 at a U–235 concentration of 20 percent, and $11 at a U–235 concentration of 2 percent. Five thousand kilograms of U–235, which would have a value of $85,350,000 at a U–235 concentration of 90 percent, corresponds to about 5,300 kilograms of U–235 at 20 percent concentration and about 7,760 kilograms of U–235 at 2 percent concentration. On the same basis, the total amount of uranium (including the U–238 content) is 26,500 kilograms at

a U–235 concentration of 20 percent and 388,000 kilograms at a U–235 concentration of 2 percent.

In general the relation is that the U–235 content for a concentration of 2 percent corresponds to 1.465 times the U–235 content for a concentration of 20 percent. The total uranium (including the U–238 content) for a concentration of 2 percent corresponds to 14.65 times the total uranium for a concentration of 20 percent.

Sincerely yours,

K. E. FIELDS, *General Manager.*

Senator HICKENLOOPER. Is there any reactor, where we have accurate knowledge today, that does not require at least a certain amount of enrichment much in excess of 20 percent?

Mr. STRAUSS. Yes, Senator, I understand that the Calderhall reactors of which we have heard were designed for natural uranium, in which case the enrichment is only one part in 140, seven-tenths of 1 percent.

I don't know whether they succeeded in using natural uranium in those reactors but that is the purpose which they were designed for and it is quite possible theoretically to build a reactor using natural uranium.

Senator HICKENLOOPER. As a matter of fact, however, don't we operate our reactors with at least a certain portion of enriched uranium greatly in excess of 20 percent?

Mr. STRAUSS. As you know, Senator, we have reactors operating at various degrees of enrichment including very large ones. Two of the reactors which are in the present program, construction program, the so-called Yankee reactor at Rowe, Mass., will be operating they calculate on an enrichment of something less than 2.6 percent, and the Commonwealth Edison reactor will be operating at an enrichment of 1½ percent.

Senator HICKENLOOPER. But don't they actually have cores there, or portions of cores, that are greatly in excess of that?

Mr. STRAUSS. No, sir; not those two.

Senator HICKENLOOPER. I don't mean the whole core.

Mr. STRAUSS. No, sir; they do not.

Senator HICKENLOOPER. Do I have the assurance then from your technical advisers that there is no material in those reactors that has an enrichment above 2 or 2½ percent?

Mr. STRAUSS. No, I did not say that Senator. You said 2½ percent?

Senator HICKENLOOPER. No; that is greater than 2 to 2½ percent in those cores?

Mr. STRAUSS. No. The reactor for example at Shippingport has some highly enriched material in the core, and there will be other reactors that have highly enriched cores.

I was mentioning those that had cores of low enrichment, to indicate that it is possible to build reactors with cores of enrichment as low as in the case of Commonwealth Edison of less than 1½ percent.

Senator HICKENLOOPER. I don't want to get into the details of this matter, but I am pretty firmly of the impression that, although it may be a small amount of the whole, there is material in these reactors which is greatly enriched beyond 2 or 3 percent, whereas the average may be a certain percent.

Mr. STRAUSS. Senator, your familiarity with this is so great and your experience with it so long that I hesitate to even accept the statement of Dr. Kirk in contradiction of it, but I would like to furnish for the record, for your information, sir, a written statement to that effect.

Senator HICKENLOOPER. I have been reading the reactor report, No. 57 or 82 or some such number, which I think states in several places the degrees of enrichment, which do not quite correspond to my understanding of this low enrichment proposal.

(The Atomic Energy Commission subsequently furnished the following additional information, by letter dated May 20, 1957:)

MR. CARL MARCY,
Chief of Staff, Committee on Foreign Relations,
United States Senate.

DEAR MR. MARCY: During Admiral Strauss' testimony before the Committee on the International Atomic Energy Agency, Senator Hickenlooper inquired whether all power reactors require at least some highly enriched, i. e., over 20 percent U–235, uranium.

I would like to provide for the record the following information in response to this inquiry:

One of the things that chacterizes reactor designs is their variability. There are a number of fuels, moderators, and coolants. The permutations possible run to the hundreds.

Similarly, the composition and distribution of fuel varies. Some designs contemplate small amounts of high-enrichment material in conjunction with natural or depleted uranium. The present plan for the Shippingport unit is just this. However, the original design contemplated a uniform enrichment and subsequent cores may return to this plan. The unit can be operated satisfactorily under both arrangements so we cannot say that such designs require highly enriched material.

Moreover, we know of approximately a dozen units covering 6 different basic types of reactors that will use low-enrichment material, i. e., without fuel exceeding 20 percent enrichment. For example, we have the—

1. Yankee Atomic Electric Co. unit, a 134-MWE pressurized-water type which uses 2.6 percent UO_2.
2. Dresden nuclear power station, a 180-MWE unit of the boiling-water type which uses 1.5 percent fuel.
3. Calder Hall graphite-moderated type which uses natural-U fuel.
4. Chugach Electric Association unit, a Na-cooled D_2O-moderated unit that uses 1.5 percent fuel.
5. Consumers Public Power District unit, a Na-cooled graphite moderated unit using 2.3 percent fuel.
6. City of Piqua unit, terphenyl cooled and moderated, using 3 percent fuel.

I believe the important point is that it is possible to have power reactors without requiring the use of fuel exceeding the 20 percent enrichment level which applies to material made available to foreign projects, even though a number of reactors in the domestic program contemplate the use of highly enriched material which is available to projects located in the United States.

Senator Hickenlooper also inquired regarding the fuel enrichment of the six reactor projects that were discussed in the hearings before the Joint Committee in February. It must be recognized that exact design conditions vary somewhat during the course of designs and that the values cited for these units, and the ones listed above, may therefore be modified. However, the information we have on these six reactors indicate the following fuel enrichments:

1. The Belgian fair reactor: 4.5 percent.
2. The Edison-Volta unit: 2.6 percent.
3. Three units for Latin America: 20 percent.
4. The Dominican Republic unit: Not yet established.

Sincerely yours,

JOHN A. HALL,
Director, Division of International Affairs.

AN ATOMIC POWER PROGRAM?

Senator BRICKER. Chairman Strauss, we designate this as an atoms-for-peace program under the international statute as it has been drafted. Isn't it in fact an atomic power program?

THE USE OF RADIO-ACTIVE ISOTOPES

Mr. STRAUSS. Senator, the reason I would hate to designate it an atomic power program is because those of us on the Commission feel, and I think with justification, that the use of radioactive isotopes will in the course of time become equally as important as power in the economy of the world, and perhaps more important.

We have recently completed an estimate indicating that in this country at the present time we are saving industrially about a half a billion dollars a year from the use of radioactive isotopes, and that takes no account of the medical uses on which of course we can fix no price.

Senator BRICKER. That is going up very rapidly of course in our program?

Mr. STRAUSS. That is right, sir.

Senator BRICKER. Is there any thought in your mind that those could not be made available in the industrial program by the bilaterals which we are already entering into, some 41 having already been approved?

Mr. STRAUSS. No, I think that is one of the purposes of those bilaterals, and we are encouraging nations to study the isotope program intensively for that reason.

Senator BRICKER. And of course this country has made available the isotopes in the medical program very freely?

Mr. STRAUSS. That is right.

Senator BRICKER. To all nations who apply?

Mr. STRAUSS. That is right, Senator.

Senator BRICKER. And there is no reason why we should not continue, so in any other program of the utilization of isotopes, this is merely an adjunct and unnecessary?

Mr. STRAUSS. There is this to be said, Senator.

Some of the very most useful isotopes are very short lived. By that I mean that they would not survive long enough to be taken from the reactor and shipped very great distances in the world. Therefore countries are being encouraged to build reactors which will produce those isotopes locally so that they can use them locally.

A POWER PROGRAM

Senator BRICKER. A power program would not be necessary for that at all?

Mr. STRAUSS. No, a power program would not.

Senator BRICKER. They could use their own experimental reactors?

Mr. STRAUSS. That is true, Senator.

Senator BRICKER. On the grounds then that this may not be exclusively, but I think predominantly, a power program, couldn't the nuclear power which is made by other countries that are recipients of the fuel and of the plants that will be constructed distribute that power to a jet plane factory or a munitions factory or an atomic weapons plant without violating the terms of this statute at all?

Mr. STRAUSS. I think there is nothing in the statute that follows the power to its end use. I do believe that in considering the necessity for a plant, that the agency will inquire as to the necessity for the power and its end use, but a use of that power for what you and I might consider an undesirable purpose is not prohibited in the statute.

Senator BRICKER. It is not even considered in the program. You say that you think the Agency will do this. We will just have one vote in that agency, won't we?

Mr. STRAUSS. That is correct, Senator, one vote and considerable influence.

Senator BRICKER. It will largely be controlled by the countries that are recipients of the fuel and of the reactors?

Mr. STRAUSS. Senator, I might say that the same would be true if we shipped coal to these countries or fuel oil or electronic equipment. Almost anything could be put on that kind of an end use, that is to say it could be used in a munitions plant making conventional arms, and I doubt whether we would ever know it or could follow it.

Senator BRICKER. That is absolutely true, so this is supplementing the war potential really of the countries that are building these plants?

Mr. STRAUSS. I certainly cannot deny that that is a possibility, but it is not the intention obviously.

INSURANCE PROGRAM

Senator BRICKER. I have many questions here that I will have to ask at a later date but there are one or two that I want to clear up.

Dr. Libby expressed his belief that an accident or an explosion in a reactor is practically impossible and that the chance of damage was almost negligible from a reactor that might run loose.

Why was it necessary then for your Commission and for industry in this country to come to our committee and ask for the consideration, and we did approve it, of an insurance program of a half a billion dollars in case of such accidents in our country?

Mr. STRAUSS. Because that insurance was not available, Senator, from private insurance companies. Conceivably the pilots of an airline might all have heart attacks and all crash their planes into civilized communities more or less on the same day. It is conceivable but extremely unlikely, but companies operating airplanes can get insurance. Companies building and operating nuclear power plants, because this is a new industry and because it has not been realized until recently that we have had a very large amount of experience already accumulated, have not been able and are not able to obtain in excess of I think $60 million of insurance per individual plant, and that would not be sufficient to cover liabilities to third parties in the very remote possibility of a nuclear catastrophe.

Senator BRICKER. I have been notified that my time is up. I will pursue the questions a little bit later.

The CHAIRMAN. Senator Dworshak?

THE BILATERAL AGREEMENTS

Senator DWORSHAK. Thank you, Mr. Chairman.

Admiral, in your statement you referred to the question why is this agency needed.

Then you sought to rationalize and justify it on the basis that while it is not competitive with our bilateral agreements, you feel that this task is so huge and the opportunities so broad that you contend that combined activities of the United States are necessary along bilateral lines and multilateral lines.

What makes you think that that is necessary, and why can't the job be done on a bilateral basis?

Mr. STRAUSS. Senator, for reasons which will suggest themselves to you, I do not wish to mention the names of specific countries, but there have been some countries, despite overtures that we have made, have decided, for reasons best known to themselves, not yet to respond to our willingness, our desire to enter into bilateral agreements with them.

They have, however, by participating in the formation of the agency statute, indicated their willingness to accept the same limitations on their sovereignty that a bilateral would impose, but not to us.

In other words, they are quite willing to do it to an international body but not to the United States.

SHOULD FOREIGN AID PROGRAM BE EXPANDED TO INCLUDE AGENCY EXPENSES?

Senator DWORSHAK. Let's just refer briefly to our foreign military and economic aid program. I have been one of those who has questioned the efficacy of that program, its results, after having been in operation for a decade, we have spent about $62 billion on it. I might ask you the question, Do you think it is necessary to expand our foreign-aid program so that an international agency might disburse these billions of dollars provided by our country?

Mr. STRAUSS. Senator, I feel it would be as out of place for me to express a view on that as for the chairman or the director of the agency administering that to have a public opinion on the responsibilities of the Commission.

I think that they are not on all fours, since one of the reasons that I am advocating the agency is for the protection of the people of the United States against hazards to their health and safety that could arise from a disorderly unilateral decision on the part of each country that goes into this business as to how it operates its plants.

It is as if you lived in a town, Senator, where there are no fire laws, where anyone could erect any kind of building he wished out of any kind of material he wished.

The hazard to you and other citizens is so great that you insist on uniform standards of construction in the mutual interest not only of the man who has put up that house or that factory, but in the protection of your own property.

Senator DWORSHAK. Surely you are not contending that we can expect a greater measure of cooperation through an international agency from the participating nations than we might expect on a bilateral basis from a nation receiving research information and atomic energy and various secrets from the United States directly?

Mr. STRAUSS. No, but there will be nations which are not receiving anything from the United States and with whom we have no bilaterals, and those are the nations that I would hope would conform to these standards by participating in the agency.

BILATERAL AND MULTILATERAL ACTION

Senator DWORSHAK. And you still insist that we can accomplish more in a shorter period of time by operating both on bilateral and multilateral bases?

Mr. STRAUSS. Senator, I am convinced of it.

Senator DWORSHAK. I am not.

Mr. STRAUSS. Or else I would not be here.

Senator DWORSHAK. I wish I had your optimism along that line.

Mr. STRAUSS. I wish it too.

The CHAIRMAN. That concludes the first round.

We will start the second round now, and those who have not asked all the questions they wished on the first round may be given a further opportunity to do so.

We will extend the time from 6 minutes to 10 minutes.

Senator Anderson, any further questions?

QUESTION OF AVAILABILITY IN UNITED STATES OF MATERIAL OFFERED TO AGENCY

Senator ANDERSON. This material that is 5,000 kilograms of 20 percent enrichment could then become 50,000 kilograms at 2 percent enrichment. Do we have that on hand for this purpose?

Mr. STRAUSS. Senator, this material will be required over a considerable period of years, and we made this proposal with the careful evaluation of what we had on hand, our production rates, and it will be available when it is required, when and if it is required.

Senator ANDERSON. It will have to come out of subsequent production at that particular time?

Mr. STRAUSS. It was planned that it would come out of production as required.

ANTICIPATED REQUESTS FOR AGENCY MATERIALS

Senator ANDERSON. The same reference that you make to inspection on page 13 of your statement for ourselves, will the British be asking anything from this Agency that you anticipate?

Mr. STRAUSS. I cannot speak with any authority there, Senator, but I would believe not.

Senator ANDERSON. The British would not ask for any?

Mr. STRAUSS. I believe no.

Senator ANDERSON. Would the French ask for any?

Mr. STRAUSS. Again, as I say I cannot speak with any authority but I would believe yes.

Senator ANDERSON. And the Belgians?

Mr. STRAUSS. I would believe yes.

Senator ANDERSON. West Germany?

Mr. STRAUSS. I would believe yes.

INSPECTION

Senator ANDERSON. Once they get that if there are inspectors from a country like Russia available, could they go into these countries and ask questions of them?

Mr. STRAUSS. The provisions of inspection indicate—I would like to read that particular section where they can say no about a particular inspector. Pardon me just a moment, sir.

Senator ANDERSON. You are going back to Article 12, I believe.

Mr. STRAUSS. This is the authority that the Agency has:

To send into the territory of the recipient State or States inspectors, designated by the Agency after consultation with the State or States concerned, who shall have access at all times to all places and data and to any person who by reason of his occupation deals with materials, equipment, or facilities which are required by this Statute to be safeguarded, as necessary to account for source and special fissionable materials supplied and fissionable products and to determine whether there is a compliance with the undertaking against use in furtherance of any military purpose referred to in subparagraph F–4 of article XI.

I would assume that the language "after consultation" would mean that if the Agency were sending in an individual who was persona non grata, that the consultation there was provided in order that that particular individual could not be imposed upon the country.

Senator ANDERSON. If the British should be asking for anything, for example, and you say they are not, certainly we would admit that Mr. Plowden would meet this test here in asking for tests of any other facilities in which this material is being used.

Mr. STRAUSS. Senator, I am sorry I did not follow the question.

Senator ANDERSON. It says they can go to any person who by reason of his occupation——

Mr. STRAUSS. Yes.

Senator ANDERSON (continuing). And he is head of the atomic-energy activities over there, connected with them, at least. In his occupation he deals with material and equipment facilities

Mr. STRAUSS. I understand your question.

Yes; he would be subject to such an inspector.

Senator ANDERSON. Could he ask them about all their military plans to be sure some of this is not going into military purposes?

Mr. STRAUSS. I assume they would ask him all questions pertinent to the determination of their purpose which was to determine whether there was compliance with the undertaking against use of Agency assistance in furtherance of any military purpose.

Senator ANDERSON. Is it all right to make him give some accountability of his military program to be sure that some of this enriched material was not going into that?

Mr. STRAUSS. I am sorry that this is tied to a particular individual and a particular country, but on an impersonal basis my answer would be that he would have to submit to an examination that the Agency assistance received was not being used in furthering the military program.

PROPOSED AND PENDING ORDERS FOR MATERIALS

Senator ANDERSON. The material you say will probably contain only 2 or 3 percent. Would a great many of the reactors that are now being contemplated for other countries require more than that?

I am referring to your testimony back before the Joint Committee in February where you said there were six firm orders from overseas. Are those 6 firm orders all for reactors containing more than 2 or 3 percent?

Mr. STRAUSS. Senator, I did not bring with me this morning anyone from the Reactor Development Division and I am unable to answer that question off the cuff, but I will be glad to supply the answer.

I do not know the degree of enrichment of the fuel in the contemplated reactors. (See letter on p. 113.)

Senator ANDERSON. The 1 going to Belgium, which is a power reactor, 3 going to Latin American countries, 1 going to Italy——

Mr. STRAUSS. The one going to Belgium is definitely below 20 percent, but that is the only one that I can recall offhand.

Senator ANDERSON. They don't follow the Shippingport pattern then?

Mr. STRAUSS. They will follow the Shippingport pattern with respect to the future loading of Shippingport, not the present loading.

Senator ANDERSON. But the present loading is above 2 or 3 percent?

Mr. STRAUSS. The present loading of Shippingport contains some highly enriched material.

Senator ANDERSON. They have got to get started, have they not?

Mr. STRAUSS. Yes.

Senator ANDERSON. So when they get started they will need more than 2 or 3 percent?

Mr. STRAUSS. I do not know the degree of enrichment of the proposed Belgium reactor but that it is not over 20 percent I am informed.

Senator ANDERSON. Not over 20 percent?

Mr. STRAUSS. That is right.

Senator ANDERSON. But in your prepared statement you said:

such low enrichment material will be adequate for most power-type reactors.

Mr. STRAUSS. That is right.

Senator ANDERSON. And you refer to 2 or 3 percent?

Mr. STRAUSS. I said "most." There will be exceptions.

Senator ANDERSON. Here are the first six that you mention on page 314 of the hearing. You mentioned an Italian one. Will the Italian one be able to start with 2 or 3 percent?

Mr. STRAUSS. Senator, those reactors are all being negotiated for under our bilateral agreements.

Senator ANDERSON. Yes.

Mr. STRAUSS. And none of those at the present time at any rate involves application to the Agency for material.

Senator ANDERSON. Well, reference was made by Senator Hickenlooper to the possibility that the Japanese might decide to revise those and not do it by bilateral but come into the Agency thinking it might be more reasonable.

Mr. STRAUSS. The degree of enrichment is not a measure of the reasonability of the reactor.

For example, the Italian reactor I am informed, the one which is to be built by the Edison Volta Co., is a copy of the Yankee reactor in which the degree of enrichment is less than 2.6 percent.

Senator ANDERSON. The Yankee one is not yet built?

Mr. STRAUSS. That is right.

Senator ANDERSON. It has to have some additional test, will it not, to decide how the sponsors are going to operate?

Mr. STRAUSS. No; the Yankee reactor is a development of the pressurized water reactor.

Senator ANDERSON. But it is not the same as the Shippingport?

Mr. STRAUSS. It is an improvement on Shippingport. It is a second generation of the Shippingport reactor.

Senator ANDERSON. Is the Edison Volta deal a firm deal?

Mr. STRAUSS. That, Senator, will be a contract or is a contract between the Edison Volta Co. and an American contractor, and I cannot tell you now whether the contract has been signed or not.

I believe it has. I am informed that it is in the shape of a letter of intent at the present moment.

Senator ANDERSON. I don't want to take additional time on it. I am just curious as to what this 2 or 3 percent might do. We are not going to confine our shipments that low, are we? If they wanted 20 percent, we would let them have it wouldn't we?

Mr. STRAUSS. Not over 20 percent but this statement was a statement to the effect that we believed that the majority of these power reactors would be in the range of 2 to 3 percent enrichment.

Senator ANDERSON. All right, Mr. Chairman.

The CHAIRMAN. Thank you. Mr. Smith?

WILL RECIPIENT COUNTRIES HAVE VOICE IN DETERMINING THEIR INSPECTORS?

Senator SMITH. Mr. Chairman I have a few questions.

Admiral Strauss, will nations receiving fissionable material from the agency after its projects have been approved have any voice in determining what inspectors will be allowed in to check on the use of the material? In other words, can a Communist nation like Bulgaria or some other Iron Curtain country insist that only Soviet inspectors be admitted?

Mr. STRAUSS. No; it cannot insist. The inspection team will be provided by the agency. The principal negotiator of this statute for the United States, Senator Smith, Ambassador Wadsworth, is seated here, and I would like to ask him to confirm or amplify the answer that I have just given in order to be fully responsive and accurate. No country can insist on being inspected solely by another country, can they?

Mr. WADSWORTH. I think there is nothing in the statute that would prevent a country's attempting such a limitation, but it certainly is not the intent, either of the smaller 12-nation group or of the large group, that any country would have so many peremptory challenges that they would wind up with inspectors only of one or favored nationalities. The challenge is meant, as you said before, Mr. Chairman, for the purpose of persons who might be persona non grata, and not for other purposes.

Mr. STRAUSS. And since the inspection, Senator Smith, will be set up before the fissionable material is delivered, you can see what that kind of an attitude on the part of the petitioning country would do with respect to the other members of the Agency or the provision of any further material by the United States.

Senator SMITH. You feel that the method of selection of inspectors. then, is another safeguard over the whole picture?

Mr. STRAUSS. I do, sir.

SAFEGUARDS AGAINST MILITARY USES

Senator SMITH. Now, then, my next question is: What control would the Agency have over chemical processing of burned material? Suppose a country builds its own reprocessing plant; what could you do under those conditions to prevent such material from being used for military purposes?

Mr. STRAUSS. The Agency in the same article, No. XII, on the subject of safeguards, has the authority to approve the means to be used for chemical processing of irradiated materials—

> Solely to assure that this chemical processing will not lend itself to diversion of materials for military purposes, and will comply with applicable health and safety standards, and to require that special fissionable materials recovered or produced as a byproduct be used for peaceful purposes under continuing Agency safeguards for research or in reactors existing or under construction specified by the member or members concerned and to require deposit with the agency of any excess of any special fissionable materials recovered or produced as a byproduct over what is needed for the above-stated uses in order to prevent stockpiling of these materials, provided that thereafter, at the request of the member or members concerned, special fissionable materials so deposited with the Agency shall be returned promptly to the member or members concerned for use under the same provisions as stated above—

that is to say, continuing Agency inspection and safeguards.

Senator SMITH. Of course, if the offending country withdrew from the Agency, then nothing except force——

Mr. STRAUSS. That is right; force and the inability to operate the plant and the loss of the investment and the inability to obtain any further Agency assistance. That, it seems to me, Senator, is the most compelling of the sanctions that there are.

Senator SMITH. I agree with you on that. I think that is true. The fact that they cannot get more of the material would be a big deterrent. I think you have already answered this question. The charge has been made that, once the material has been made available to the Agency by the United States, we would lose all control over the material and could not specify either the country to which it might be sent or the project in which it might be used. I think you have said very clearly that that is so.

Mr. STRAUSS That is correct, except as a member of the Board.

RED CHINA

Senator SMITH. Another charge has been made that the question of membership in the Agency is not resolved; a simple majority could admit a new member. Some of us are concerned over the China question, of course; whether it would be possible—entirely aside from the United Nations situation with regard to China—for the agency by any hook or crook to admit the Red Chinese government to the Agency?

Mr. STRAUSS. I share your concern, Senator, and it is possible. It is regarded by our diplomatic colleagues as unlikely, based upon the failure of the Soviet representatives on five separate occasions to obtain sufficient support to do that very thing, and their failure to get support for it is again a tribute to the existing and, in my opinion, continuing influence that the United States will have in the deliberation of the Agency.

Senator SMITH. Then you think the United States influence would be comparable in the Agency to what it is in the U. N., although there is no connection between the two?

Mr. STRAUSS. I think it will be much more potent—this is an expression of personal opinion—I think it will be much more potent in the Agency than in any other organization because of the material consequences of a vote that would run counter to our wishes.

AGENCY'S HANDLING OF TRANSACTIONS BETWEEN SUPPLYING AND RECIPIENT COUNTRIES

Senator SMITH. I believe you have answered this question. It has been charged that the statute is not clear as to whether we would contribute fissionable material to the Agency, or whether the Agency would purchase it from us. As I understand from what you have said, the Agency is sort of a broker in the matter, and the Agency would determine that country X possibly should have some of the stockpile that we would be holding here, the terms of which would be worked out between us and the country it was going to. It that correct? Or would we make a deal with the Agency and then they in turn would make that charge against the receiving country?

Mr. STRAUSS. My belief is that that transaction would be between the United States and the Agency.

Senator SMITH. And the Agency?

Mr. STRAUSS. Rather than as in the case of bilaterals between the United States and a recipient country.

Senator SMITH. If he wanted X dollars for a certain amount of this material that would be an agreement between us and the Agency?

Mr. STRAUSS. That is my belief.

Senator SMITH. And we would not deliver it until we got our compensation or arrangements were made that were satisfactory as to the compensation.

Mr. STRAUSS. There would be much more than that consideration before we delivered, Senator. We would only deliver when the Agency is in every way discharging its responsibilities under the safeguards provision in respect of the project, approved it, set up inspection, and then the delivery would be made.

Senator SMITH. And that delivery would be controlled by us, the material would be in the control of this country?

Mr. STRAUSS. That is a correct statement, yes, sir.

IS TREATY SELF-EXECUTING?

Senator SMITH. This question was asked of Secretary Dulles last week but I want to ask it again.

Is this convention self-executing or does it require implementing legislation by the Congress?

Mr. STRAUSS. Senator, this is a question outside of my competence, but my belief is that it requires a participation act by the Congress. I think, however, that you should not take that as other than the expression of a personal opinion, unless Ambassador Wadsworth would care to comment on it from the point of view of the State Department.

Senator SMITH. Would you care to comment on that, Ambassador Wadsworth?

Mr. WADSWORTH. Yes, Senator, we do plan to submit a participation act which would be similar to the act with which the United States became a participant in the United Nations. It would set up the position of representative to this Agency, provide for his staff and things of that sort.

Senator SMITH. The procedure would be similar to the procedure we used when we adopted or ratified the United Nations Charter?

Mr. WADSWORTH. That is correct.

Senator SMITH. There was one reference you made, Mr. Strauss, that I want to ask you about and I am through.

DISPOSAL OF WASTE

You talked about the danger of waste disposal. If it is dumped in the ocean it will be dangerous. What is the procedure in preventing that?

Mr. STRAUSS. No, I said if it were done indiscriminately in either of those places. There are methods for disposal at sea, there are methods for disposal on the land in which the material is suitably encased and located in a suitable place at suitable depths which our people believe to be quite safe, but the indiscriminate disposal of it could provide a hazard that would go far beyond the boundaries of the country disposing of it.

Senator SMITH. Then the Agency project in your judgment would take care of that disposal danger?

Mr. STRAUSS. And it will inspect for it.

It will inspect to see that health and safety standards having been agreed to are rigidly adhered to.

Senator SMITH. Thank you. That is all, Mr. Chairman.

The CHAIRMAN. Senator Hickenlooper, do you have some questions?

DETAILED INSPECTION REQUIREMENTS NOT INCLUDED IN STATUTES

Senator HICKENLOOPER. Yes, I feel, Mr. Chairman, that most of the questions I have to ask should be asked of the State Department, because they involve a matter of interpretation of the international operations of this Agency. I take it that Chairman Strauss and the Atomic Energy Commission are probably here to speak to the technical end of this matter, and I do have 1 or 2 questions along that line, involving the inspection proposals.

I can't interpret the statute, that is the provisions of the statute, as laying down any inspection details.

The statute only lays down, as far as I can see it, criteria, so that the terms of inspection are not United States terms that are adopted by the Agency. Those terms, as I would interpret it, possibly might be much looser than the United States specifications for our own actions, and still be within the broad, general objectives of inspection operations.

In other words, I know of no details of inspection or requirements that are contained in the statute, except the broad objectives that people shall inspect, there shall be accountability, and it shall not be used for war purposes or military purposes.

It shall be used for peaceful purposes and reasonable safeguards and proper safeguards shall be set up. Those are objectives. Those are broad outlines. I see nothing in the statute that delimits or that defines the specific requirements of inspection other than the generalities.

Mr. STRAUSS. Senator, I think that you are quite correct that the statute is drawn for the purpose of making the broad outlines, and it does not say how many men shall be in an inspection team or how often the auditors shall visit the plant or to what specific kind of inspection they shall address themselves, but I am going to ask Dr. Kirk, with your permission, and who has specialized on this point, to try and be responsive to this question.

Senator HICKENLOOPER. My time is limited and I have to go, but I merely want to make the observation that I fully agree as to the impossibility of writing into a treaty all of the details of an inspection procedure. But I do question the idea that we could be secure and safe because inspection systems of the Agency will be fully as meticulous and fully as safe as the details of the inspection which we have within our own country.

Mr. STRAUSS. The bilaterals are similarly outlined.

Senator HICKENLOOPER. But we write the bilaterals.

Mr. STRAUSS. That is true, and we would be in the position of the only nation with experience represented on the Board of Governors of the Agency, and would believe and do believe that our views and recommendations in this respect would be followed.

As a matter of fact, Senator, the self-interest of the participating nations is so heavily engaged that I personally feel confident that they will accept rigid inspection.

Senator HICKENLOOPER. I believe we will have to rely on that in this matter, but it runs in my mind that other nations do not have the standards in various degrees of activity in connection with this matter that we have.

Mr. STRAUSS. That is true.

Senator HICKENLOOPER. And in the last analysis the terms and conditions and type and detail of inspection will be written by the Agency in conformance with the general outlines which the statute lays down.

I would hope that we would have a great influence on the security safeguards and the other safeguards that are finally written by the Agency.

Mr. STRAUSS. I hope that our representative on the Board of Governors will be a man knowledgeable in atomic energy matters, a man of strong character, and that as a result of that we will have the kind of safeguards we wish.

QUESTION OF REIMBURSEMENT

Senator HICKENLOOPER. I only want to call attention to one other matter at this time. That is article 13.

It seems to me you have a loophole in it on whether we get paid for this material or not. I know it has been quite generally assumed that we would receive some compensation, but the very first few words of article XIII are these:

Article XIII provides that, unless otherwise agreed upon between the Board of Governors and the member furnishing to the Agency materials, services, equipment, or facilities, the Board shall enter into an agreement with such member providing for reimbursement for the items furnished.

I submit that that could mean anything, from no payment at all up to whatever payment we believed to be fully compensatory.

Mr. STRAUSS. My understanding of the history of that article, Senator, is this: That those portions of the statute providing for reimbursement by the receiving country were first written, and it was then suggested that an occasion might arise as an exception where a recipient country might be a recipient without pay or a recipient with part pay, and that this exception was put in in order to enable that to take place, and to be the exception but not the rule.

Senator HICKENLOOPER. Just to ask the question that I raised with the Secretary of State the other day—this statute places overwhelming emphasis on undeveloped countries, it keeps reiterating that, and I raised the question that probably these countries don't have the money to pay for the things that they need.

Therefore, will this mean that the countries whose help is to be emphasized will be the countries that will be expecting a donation?

Mr. STRAUSS. They will not get the donation out of the 5,000 kilograms we have been talking about because that is going to be cash on the barrelhead until Congress should determine differently.

The CHAIRMAN. Have you any further observations to make?

Mr. STRAUSS. Only this, Senator. This has been for the Commission a very helpful morning.

The CHAIRMAN. You have made a very clear and good statement on all the questions that have been asked.

Mr. STRAUSS. We are very grateful to you and the committee.

The CHAIRMAN. The committee will stand adjourned until 10 o'clock tomorrow morning.

At that time in this room we will hear the testimony of Ambassador Wadsworth.

(Whereupon, at 12:35 p. m., the committee was adjourned, to reconvene at 10 a. m. Wednesday, May 15, 1957.)

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STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

WEDNESDAY, MAY 15, 1957

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, D. C.

The committee met, pursuant to call, at 10 a. m., in room 457, Senate Office Building, Senator Theodore Francis Green (chairman) presiding.

Present: From the Foreign Relations Committee: Senators Green (chairman), Fulbright, Sparkman, Smith (New Jersey), Hickenlooper, Knowland, and Aiken; from the Joint Committee on Atomic Energy, Senator Hickenlooper, who is a member of both committees.

Also present: Francis O. Wilcox, Assistant Secretary of State for International Organization Affairs; Leonard C. Meeker, assistant legal adviser, Department of State; and Gerard C. Smith, special assistant to the Secretary of State.

The CHAIRMAN. The committee will come to order.

We are meeting again this morning with members of the Joint Committee on Atomic Energy to continue our consideration of the statute on the International Atomic Energy Agency.

We have previously had presented to us the views of the Department of State and the Atomic Energy Commission concerning various aspects of the treaty before us.

Today we are to hear from Ambassador James Wadsworth, deputy representative of the United States to the United Nations.

Ambassador Wadsworth played a leading role in the process of drafting and negotiating the statute, and we welcome this opportunity to obtain his valuable comments, particularly on those aspects of the treaty on which some of my colleagues may desire additional information.

Next Monday morning we plan to take the testimony of nongovernmental witnesses. We will meet for that purpose at 10 a. m.

We shall now hear from Ambassador Wadsworth.

STATEMENT OF HON. JAMES WADSWORTH, DEPUTY REPRESENTATIVE OF THE UNITED STATES TO THE UNITED NATIONS

Mr. WADSWORTH. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I deem it a great privilege to have the opportunity to appear before this committee and to discuss as briefly as I may some aspects of this treaty not fully gone into by Secretary Dulles and Chairman Strauss.

Secretary Dulles last Friday discussed with you the great foreign-policy considerations that hinge on ratification.

Chairman Strauss yesterday explained the atomic-energy advantages and safeguards which we look to this agency to produce. I would now like to give you some insights into the process by which this treaty was hammered out, run through the highlights of the statute itself with you, and after that I will be glad to answer questions such as I may be able to answer.

NEGOTIATION OF THE STATUTE

Mr. Chairman, I have been working for over 4 years as the deputy United States representative to the United Nations. During all the international conferences in which I have participated, I have never sensed such an intense interest and such a strong will for agreement as developed during these political negotiations on the atoms-for-peace program and this statute.

It is somewhat difficult to define exactly the atmosphere in which we worked on this project. It was unlike any that I had ever attended. It was not a long series of agreements couched in generalities. Rather, it was a businesslike negotiation aimed at spelling out provisions for an international agreement to permit certain technical activities around the world.

It was not all sweetness and light. There was real skepticism about a number of important points which we overcame only after lengthy and intensive consultation and negotiation.

I would describe the atmosphere as one of determined cooperation. At the finish there was general agreement that the statute represents the soundest, most logical, and safest way of attaining international promotion for and supervision of peaceful uses of atomic energy.

As we run through the important articles of this treaty, I think that you will agree that we were not outnegotiated. If you compare the United States draft which was submitted to the 12-nation working group in Washington in February 1956, if you compare that with the final text of the treaty as agreed upon last fall, it will be perfectly clear that all of the original American policies are fully reflected in the treaty. Of course, some changes were made, and, in our judgment, a number of improvements came out of the negotiating process. But, as Secretary Dulles said the other day, "despite the need to reconcile these varied interests, the statute has kept intact every element of the President's proposal without sacrifice of substance or principle."

Now, let us go briefly through the major points of this statute.

ARTICLES I AND II

Article I—Establishment of the Agency, and Article II—Objectives, I believe, are self-explanatory.

ARTICLE III

Article III—Functions. This article spells out what the Agency is authorized to do. Because we hope that this Agency will be good for the long pull, it has been given wide scope.

In its early years it certainly will engage only in modest activities compared to the full scope of its authorized functions. This is clear from the planning work that has already taken place in the preparatory commission in New York during the past few months.

There are a number of factors which will be at work to limit the scale of Agency activities in the beginning. The basic factor will be the caution with which this new international venture will be approached by supplying countries. Potential suppliers will watch this young project develop before assigning to it any large-scale responsibility for materials handling.

One may say that the United States has already committeed itself to transfer 5,000 kilograms right away to the Agency. But you will recall that the terms and conditions under which this material is to be made available to the Agency are still to be worked out, and that, if these terms and conditions are not satisfactory to the United States, then there is no commitment. I am sure that the terms and conditions which we will require will take full account of the embryonic character of this Agency.

I would like to call your attention particularly to article III (D), which is generally referred to as the sovereign-rights clause. This question of sovereign rights is one on which nations are very properly quite sensitive, and there was a good deal of concern expressed in many quarters during the negotiation about the possibility that the operations of this Agency will infringe the rights of nations.

I think it is fair to say that we satisfied the legitimate concerns expressed, and succeeded in getting acceptance for language that in no way will hinder an efficient operation of the safeguards system.

ARTICLE IV

Article IV deals with membership. The statute divides this problem into two parts—initial members of the Agency (par. A of art. IV) and other members (par. B). In the first category, the United States recommended from the beginning a formula which would restrict original membership to those states "members of the U. N. or specialized agencies."

Four regimes, East Germany, North Korea, North Vietnam, and Outer Mongolia, have not achieved membership in any of these agencies, so the formula automatically rules them out. At preliminary meetings in Washington in the spring of 1956, efforts by the U. S. S. R. to strike out this phrase on the grounds that membership should be universal, were easily defeated.

At this point I might deal briefly with the problem of Red China. You understand, of course, that China is a member of the United Nations and of several of the specialized agencies, and China is represented by the Nationalist Government, the Republic of China.

At the 12-nation conference the Soviet Union tried to have an invitation to the September conference sent to Red China. This move was soundly defeated. The Government of the Republic of China was invited instead, and this Government is presently engaged in the process of ratification of the statute.

In the second category—admission of new members—there was less controversy. The issue was whether admissions should be left ex-

clusively to the General Conference or whether the Board of Governors should have a role.

Some delegations thought the General Conference should alone admit new members. The United States insisted that new members should not be admitted until both the Board of Governors and the General Conference had determined that the applicant is willing and able to carry out the obligations of agency membership and with due consideration to its ability and willingness to act in accordance with the purposes and principles of the United Nations Charter.

As you see, these provisions are part of the statute before you.

Paragraph C. The purpose of the reference to obligations of the U. N. membership is obvious. It is under essentially the same criterion as set forth in the U. N. Charter that Red China has been excluded from the United Nations, and we feel this criterion should be applied in the Agency.

ARTICLE V

Article V—General Conference. This is more or less self-explanatory, but 1 or 2 points might be brought out.

A basic difference of opinion developed over the division of authority between the Board of Governors and the General Conference. The latter body is composed of a representative from each member of the Agency. There was an effort—quite determined—to make the General Conference the main policymaking body of the Agency.

The United States, however, supported by a handsome majority, argued that, on grounds of efficiency of operation, the smaller body, the Board of Governors, meeting frequently, should be given this authority.

The final language of article V recognizes this principle, while at the same time giving appropriate powers to the Conference. For example, the Conference will review and approve (1) the budget, (2) amendments, and (3) selection of the Director General. It will elect 10 members to the Board of Governors. It will also have the authority to discuss any question that falls within the scope of the statute. The views of the Conference on these latter questions may be presented to the Board of Governors in the form of recommendations.

ARTICLE VI

(See chart, p. 12.)

Article VI—Board of Governors. Debate on the composition of the Board of Governors was intensified as it became apparent that it would be the center of authority. It was conceived that it would act as somewhat the board of directors of a corporation. Long and difficult negotiations were required before a solution was found that all could accept. The United States felt that those countries having advanced atomic-energy programs should have substantial influence in deciding the Agency policy.

On the other hand, there was the view that standard international practice of allocating seats on the basis of geographic distribution should be followed. A formula was finally worked out which did take into consideration the principle of geographic representation while at the same time recognizing the legitimate interest and responsibilities of potential suppliers.

I would like to show you briefly how this formula, which is admittedly quite complex, works out and how we think it is going to work out, how it is going to work out in practice.

First of all, as you see on the chart over there (see p. 12), the world is divided into eight major regions: North America, Western Europe, Eastern Europe, South America, Africa, and the Middle East, South Asia, Southeast Asia in the Pacific, and the Far East.

There are two classes—two categories of membership on the Board of Directors, those who are designated by the outgoing board and those that are elected by the General Conference.

In the case of the first board, the designation is made by the Preparatory Commission. The designations go as follows:

First of all, there are picked by the Board the five member states most advanced in atomic energy regardless, of course, of geographic distribution and regardless of geographic position in the world.

Next, members most advanced in the technology of atomic energy from all of the regional divisions that have not been represented by any of the first five.

Third, suppliers of raw materials which are named in the statute as being Belgium, Portugal Czechoslovakia, and Poland, with the proviso that only two of these will be elected each year and that they cannot succeed themselves immediately following their terms.

This will have the effect, of course, by agreement, of having one Western European country such as Belgium, and one Eastern European country such as Czechoslovakia designated at the same time, and the following year the other two.

Last in this category of designation is a state representing technical assistance. This we conceive to be the type of state which does not have large resources, large natural resources, or that does not produce fissionable material in any great quantity, but rather a state which has developed its technology along other lines and has the know-how to make a definite contribution to this agency.

In order that you may get an idea of who these people will be, I would like to have the chart show that the first 5 generally recognized as the Big Five of atomic energy and therefore the first category which will be appointed are the United States, Canada, France, United Kingdom, and the U. S. S. R. It can be seen that these 5 come from 3 of the 8 regions. Thus there are 5 which must be named, 1 from each of the regions that have not already been represented.

One will be South America, Brazil; Africa, and the Middle East, the Union of South Africa; Southeast Asia, and the Pacific; Australia; the Far East; Japan; and south Asia, India. That makes 10.

I have already mentioned that either Belgium or Portugal and either Czechoslovakia or Poland will be on the Board at the same time, and the technical assistance state for the easily foreseeable future will probably be either a Scandinavian or a Western European state.

After the Board makes these designations, it is then the job of the General Conference to elect the other 10 members, and that is done in this way: North America as a region is completely covered by membership of the United States and Canada.

Therefore there remain only 7 regional groupings which must be covered, and the statute provides that 1 member must be elected from each of those 7. Since there are 10 to be elected, this leaves 3 "floating" seats.

The United States position is that 2 of these floating seats should go to Latin America, and 1 to the Africa-Middle East composite.

This particular formula results in a Board of 23 members. The Board itself has very considerable powers. We have already indicated that it is considered the main policy——

Senator HICKENLOOPER. Mr. Ambassador, could I interrupt you there for just a moment?

Mr. WADSWORTH. Yes, sir.

Senator HICKENLOOPER. I have had a lot of difficulty figuring out how many members would be on the Board of Governors. I come to 26 instead of 23.

Mr. WADSWORTH. Five, five, two, and one.

Senator HICKENLOOPER. The way I get it is 5, 8, 2, 1, and 10.

Mr. WADSWORTH. No, the second must be 5 since the first 5 take up 3 of the regions. Therefore there are only five regions left to be covered.

Senator HICKENLOOPER. All right; I get it now. I have too many numbers here.

Mr. WADSWORTH. It is not the easiest thing to understand, and it was a compromise that was worked out with great care. It will result, I believe, in a board which can adequately assume responsibilities.

Senator HICKENLOOPER. Is that a fixed number?

Mr. WADSWORTH. No, sir. Because if the makeup of the first 5 should change so that more than 3 regions could be represented by them, for instance some Far Eastern country like Japan might overtake one of the Western European countries, then it might be only 22.

Senator HICKENLOOPER. Excuse me, Mr. Chairman, for interrupting.

Mr. WADSWORTH. I think it is easier to interrupt as I go along.

The CHAIRMAN. As I understand it, these figures are the original setup?

Mr. WADSWORTH. Yes, sir; 23 members as we visualize it today.

A large measure of control of the Agency rests in this Board, and I think you can see from the potential setup the predominant influence of the Board rests in responsible hands. The members of the Board who are designated, which of course will always be a numerical majority, represent the technology of the atom and also naturally represent political feelings of all kinds. But as can be seen by the list, we feel that the political feelings will be in large measure in responsible hands.

Incidentally I think it should be pointed out that the United States, the United Kingdom, and the U. S. S. R. are not the only potential suppliers to this Agency. I understand, for instance, that natural uranium, as opposed to enriched uranium, is going to be a prime fuel for power reactors.

A number of countries such as Canada, Australia, Union of South Africa, Czechoslovakia, Portugal will be able in time to supply natural uranium to the Agency. Norway, for instance, is a supplier of heavy water. India and Brazil can furnish thorium, and the list could be made much longer.

We look forward with confidence to the time when many of these countries will be acting as suppliers in addition to the United States and the U. S. S. R.

ARTICLE VII

Let's turn to article VII—The staff. The decisions of the Board of Governors will be carried out by the Agency staff. It is headed by a Director General appointed for a 4-year term as chief administrator of the Agency, and he reports to the Board of Governors.

There are a number of distinguishing features in the arrangements which govern the composition of the staff.

Note in particular these three requirements: First, that the paramount criterion in selection of staff to obtain employees is to obtain employees of the highest standards of efficiency, technical competence and integrity; second, there is an injunction to keep the Agency staff to a minimum embodied directly in the language of the statute, and third, there is the provision giving some preference to nationals of member countries that provide support to the Agency.

ARTICLE VIII

Article VIII—Exchange of Information. This deals with the exchange of scientific information. The following features are noteworthy here: First, the provision of general information is wholly discretionary with each member. Second, scientific information developed as the result of Agency assistance to particular projects must be made available to the Agency, and thus to its members.

Since we don't contemplate the United States as a recipient of Agency aid, our role as a supplier of information remains entirely voluntary, and information which is developed as a result of these projects and later given to other members are not considered to be projects in themselves and therefore do not call for the safeguards. And of course the United States will not furnish to the Agency any information of a classified nature.

ARTICLE IX

Article IX deals with the supplying of materials.

The first point to make about this article is that it puts no obligations on the members. The decision to sell or otherwise make available any materials to the Agency is entirely up to them.

The text of article IX leaves no room for any different interpretation in this regard. Paragraph A, on fissionable materials, merely says that the "Members may make available * * * such quantities as they deem advisable"; and paragraph B, on source materials, also uses the same language: "Members may make available."

If there were any doubts here on the meaning of the statute, the statutory history would dispel them. At the New York conference last fall, Denmark and Pakistan proposed that paragraphs A and B be amended by substituting the word "should" for the word "may" so as, in their words, "to put at least some moral obligation on members" to come forward with materials.

Even though it would not be a commitment, even though there would be nothing mandatory about it, the United States, among others, opposed this amendment and it was defeated easily.

Materials transaction between the Agency and its members are voluntary on both sides. Just as the Agency cannot call on any member

to make materials available, so the members cannot fob off any materials on the Agency that the Agency does not need or does not wish to accept.

Under the system, members will notify the Agency of how much and what kind of materials they are prepared to make available.

I underline that word "prepared" because this notification is not a contractual obligation or a commitment. These notifications are essentially offers to the Agency.

Then if the Agency takes up an offer and concludes an agreement with the supplying country setting out the terms, then the supplying country has the contractual obligation to deliver the materials to Agency projects as the Agency specifies, but until the Agency so specifies, the supplier has the right to keep the materials in his own possession.

It can, of course, deliver to Agency storage facilities, but only if it wants to and if the Agency agrees.

Paragraph C provides that in offering to make these materials available, the supplying member undertakes to do so only "in conformity with its laws."

This phrase was added to the statute before the 12-nation meeting in Washington last February, and was accepted without debate both at that meeting and at the subsequent 81-nation meeting in New York. It embodies a suggestion made in the course of a discussion of the statute at an executive session of the Joint Committee on Atomic Energy during the summer of 1955. This language gives additional assurance, in respect to materials, of what is abundantly clear throughout the statute: that there is nothing in it that supplants or conflicts with any law of the United States.

One further observation on article IX which underlines what I have already mentioned. Members make these materials available only "on such terms as shall be agreed with the Agency."

This phrase in article IX–A means that if the supplier is not satisfied with the price that it may get or may be offered, or with the Agency's provisions for storage or with any other arrangements bearing on security or health and safety, it is under no obligation whatever to commit any of its materials.

However, under this article the Board of Governors makes the decision as to the specific Agency project in which the material will be used.

I am confident that the Board of Governors is so made up that in practice the distributions will be equitable, and will reflect the criteria set forth in article XI, which we will get to presently.

In the unlikely event that the Board should distribute materials in a way that any supplier regards as unfair, it would run the risk of losing that supplier, and the United States like any other supplier could not be expected to continue to offer materials if the performance of the Agency is not fair and reasonable.

ARTICLE X

Article X—Only a brief word needed here. Essentially it provides that members may make services, equipment, and facilities available to the Agency. Here again the decision is entirely up to the supplier.

As in article IX, the words "may make available" were used, and

again in New York our friends from Denmark and Pakistan proposed to put the word "should" in. But after the rejection of their amendment to article IX, they withdrew this one without calling for a vote. The same provision is made for reimbursing suppliers of services, equipment, and facilities as is made for reimbursing suppliers of materials.

ARTICLE XI

Article XI describes the manner of working out an Agency project. It provides a standard set of arrangements which must be followed in getting materials, services, equipment and facilities to the nations who will use them.

Paragraph A provides that any member or group of members of the Agency desiring to set up any project for the peaceful development of atomic energy may request the Agency's assistance.

Paragraph C authorizes the Agency to arrange for the supplying of these in two ways. It may act as an intermediary to bring the applicant into direct arrangements with the supplier, or it may provide the needed items directly.

Also the Agency is authorized, by article XI–B, to help the applicant get financing of the project from outside sources. But in doing this, the Agency will neither provide guaranties nor assume any other financial responsibility itself.

Note also that the reference to "outside sources" confirms what is otherwise quite clear, that the Agency itself is not going to be a financial institution authorized to make grants or loans to members.

In approving a project, the Board of Governors is directed by article XI–E to give due consideration to six specific points, plus a seventh which is the catchall. They are: No. 1, the usefulness of the project including its scientific and technical feasibility.

No. 2, the adequacy of plans, funds, and technical personnel, and the equitable distribution of materials and other resources, and the special needs all the way down to No. 6 of the underdeveloped areas of the world.

In connection with every approved project there must be a project agreement between the Agency and the member or members concerned.

Article XI–F requires that this project agreement must include certain provisions. Among these are provisions for allocations to the project of any required materials and for transfer of fissionable materials under adequate conditions to protect health and safety.

There must be a statement of the terms and conditions including charges, on which any materials, services, and equipment and facilities are to be provided.

In addition, provision must be made for the disposition of rights in inventions, and any patents on them, growing out of the project.

Finally, every project agreement must include two very important undertakings by the member or members concerned. The first is that the assistance provided shall not be used in such a way as to further any military purpose. The second is that the project shall be subject to the safeguards provided for in article XII.

ARTICLE XII

Since the safeguards of article XII, which we get to next, are designed to be adequately protective for every possible type of project

the Agency might support, not all of them would be applicable in every case. It was provided that the project agreement should specify which of the safeguards are relevant to the project, thereby eliminating a possible source of dispute at the outset.

Article XII, the safeguards article, has been discussed at great length. It permits the United States to join this Agency in confidence that the great affirmative aim of accelerating the peaceful development of atomic energy throughout the world can be realized without concurrent furtherance of any military purpose.

Secretary Dulles has explained how article XII may achieve even more than that, how it may well make a positive contribution to solving the problem of nuclear disarmament.

I shall not go over this ground again, nor shall I repeat any of the ground covered by Admiral Strauss in citing the technical and scientific reasons for having faith in article XII's adequacy for the function which it aims to perform.

The striking thing about this "safeguards" matter was the unanimity which was reached after long and quite warm discussions. As Secretary Dulles said last Friday, if the atoms-for-peace program is to be effectively supervised, it will have to be under some multilateral scheme.

Bilateral policing by American inspectors has a limited life expectancy. This treaty, accepted by all these nations, provides the best multilateral safeguard arrangment that we know of.

ARTICLE XIII

Article XIII is self-explanatory. The principle set out here was already proposed in our draft way back in August of 1955, which was discussed with the Joint Atomic Energy Committee before its release.

Right from the start, the United States has insisted on the idea that this Agency is a business institution and not a grant-aid service.

ARTICLE XIV

Article XIV: Finance, is a very interesting development. The leadership in the draft of this article was borne primarily by Canada both during the 12-nation Washington negotiations and again in New York at the larger meeting.

The Canadians were mindful of the importance of following financial procedures which would not run the risk of facing members of the Agency with large bills to pay for extravagant programs. It was one of the great fears, both of the 12-nation group and of the larger group, that in some way, because of the large number of "have-nots" perhaps, this Agency might turn out to be a runaway Agency and should get us all into a very highly complex and highly expensive series of programs.

A similar spirit of caution and conservatism governed all of our reactions.

One other point. The concept of dividing Agency expenses into administrative costs that are to be met by apportionment among members and operational outlays to be recovered from program beneficiaries was a new contribution to the field of financing international activities.

ARTICLES XV, XVI, AND XVII

As we move along, Article XV: Privileges and Immunities, Article XVI: Relationship with Other Organizations, Article XVII: Settlement of Disputes, do not in my opinion contain provisions requiring extensive explanation.

If there are any questions on them of course we will be glad to try to provide the answers.

ARTICLE XVIII

Article XVIII: Amendments and Withdrawals—I know that this article is of special interest to members of this committee. Questions in previous sessions have indicated that there is some concern lest amendments unacceptable to the United States would be adopted over our objection.

First, let me say that this eventuality is entirely inconceivable to me. If two-thirds of the members of this Agency ever took a stand on a basic issue which was opposed to our own position, I am sure that this would signify a situation of such a character that long before its occurrence, we would have either ceased to be a member or ceased to be an active participant in this Agency.

It is inconceivable, as we have said before in the case of the suppliers and of the projects, that the members of this agency would deliberately jeopardize the support of this agency by adopting an amendment which was very unpalatable to the United States.

But in any event, as you will see in paragraph D, a nation is fully at liberty to withdraw at any time whenever an amendment unacceptable to it is adopted through the procedures of paragraph C.

Note also that there is no limitation on withdrawal at any time for any reason after 5 years from the entry into force of the statute.

I would point out too that the amendment procedure is similar to that in various other specialized organizations in which the United States participates.

It was adopted because any more rigorous procedure would have increased the difficulty of making changes in the statute which the United States may at some future time consider desirable.

Another brief piece of history I think you should know is that the Soviet Union had an amendment to this particular article which would have made a three-fourths majority necessary for the adoption of amendment. This too would have made desirable changes much more easy to block. This is why we stayed with the two-thirds.

ARTICLES XIX THROUGH XXIII

Article XIX: Suspension of Privileges, XX: Definitions, XXI: Signature, Acceptance and Entry into Force; XXII: Registration with the U. N., and XXIII: Authentic Texts and Certified Copies, do not contain provisions which warrant taking up your time unless you have specific questions.

THE PREPARATORY COMMISSION

You will find that there is also an annex to this statute having to do with the Preparatory Commission which came into existence on the last day of the New York conference.

This Commission consists of 18 member states, and was set up to make arrangements for the first meeting of the General Conference, to study and recommend to the first Board of Governors and General Conference an initial program and a budget, and to carry out certain other administrative responsibilities.

This Commission has been meeting intermittently since last October and is well on the way to accomplishing its assigned tasks. Detailed discussions are underway on the specific, immediate activities that the Agency should undertake, and on the staff and budget required to carry out these activities. The United States delegation to the Commission has played a key role in all of this activity.

The Preparatory Commission will meet next Monday to set a target date for the first meeting of the General Conference and the Board of Governors.

As you know, Vienna has been tentatively selected as the site of Agency headquarters, pending formal approval of the Agency itself after it comes into existence, and these first meetings of the Agency will be held in that city.

Mr. Chairman, that concludes my discussion of the individual articles of the statute, but I would like to close with a few personal remarks.

ENTHUSIASM FOR THE AGENCY

My enthusiasm for this Agency and for United States participation in it stems from a profound conviction that it carries in it the seed of the genuine international peace and cooperation that we have all been seeking for so long.

As I indicated at the outset, I am not a stranger to international conferences, large and small, many of them frustrating. As an example, 2 years ago I spent many weary weeks in London haggling over disarmament, and with painfully little success.

But this operation has been different, and, in my opinion, different for a very simple reason: The nations of the world not only want this Agency—but they want it to succeed. The New York Conference on the statute represented the entire civilized world in a way that no conference of this kind has ever represented it before.

You are aware that 81 nations, the entire membership of the conference, voted for this statute that is now before you for ratification. Not only that, there was not 1 single negative vote on any 1 of the 23 articles in the statute. That was the net achievement of this part of the great project: That all these nations wanted this Agency so much that they were willing to assume the obligations written into the document—willing to submit to inspection and control—willing to submerge national aspirations, ingrained suspicions of one another, even age-old hatreds.

The result is a better statute than the one developed by the 12-nation group, which, in turn, was an improvement on the draft of August of 1955.

This great and satisfying experience has left me with two sincere convictions which I submit to you now.

1. The International Atomic Energy Agency in itself represents one of the great hopes of the world. The world has shown that, first, by its overwhelming approval of the concept, and then by its unanimous adoption of the machinery.

2. The negotiations and the conference have proved that the representatives of the people of the world can work together, can iron out differences and break deadlocks, can come triumphantly and unanimously to a common worldwide position.

Mr. Chairman, even if this Agency should not live up to all expectations in the practice of its functions, it has already achieved a hitherto unachieved distinction in history. It has brought the whole world together on a common ground of agreement and endorsement. It has opened up vistas of peaceful consultation and cooperation that many had despaired of finding.

I have been truly grateful for the chance to participate in this first big breakthrough toward our common goal of peace with justice—the breakthrough initiated, nourished, developed, and brought to maturity by the United States.

I told the final session of the 81-nation conference that in my opinion we had been making history, and I ended with this challenge to them:

> Science has given us the knowledge. Diplomacy has developed the instrument. May we have the wisdom to use both for the benefit of all mankind.

Mr. Chairman, that concludes my prepared remarks and I will be glad to try to answer any questions.

The CHAIRMAN. Mr. Ambassador, I am sure I speak for all my colleagues when I congratulate you on this statement you have made. It is most illuminating and thoughtful and you have given us some very good ideas on what has happened and what may happen.

If you have no objection we would like to pursue the questioning. I will begin by asking a few questions myself.

ACTIONS OF THE SOVIET UNION

The CHAIRMAN. Has your experience in negotiating with the representatives of the Soviet Union been such that you believe we can rely on commitments which they have undertaken in this statute?

Mr. WADSWORTH. Yes, sir; I do believe so, and I believe so for the reason that I ascribe to the change of attitude on the part of the Soviet Union over the past 3 years.

As you will remember, they first did not like the idea of having an agency. But the fact that it was so universally accepted, I believe, has brought them to the conclusion that it is far better to join with this Agency than to sneer at it. I believe that they can be counted on to live up to the comparatively light commitments which they have made.

The CHAIRMAN. I understand that the Soviet Union was one of the first states to deposit its ratification of the statute.

How do you explain the Soviet desire for speed in this case?

Mr. WADSWORTH. I think that it is still a further projection of this feeling that the Kremlin has that this is a very convenient and harmless and important way in which they can build world respectability. They not only worked in the negotiations and in the conference with a considerable measure of cooperation, but they have assured us that they will continue to do so.

Of course anybody understands that a certain amount of salt must be taken with any statement of that kind, but the prompt ratification is merely another instance of the attitude which they have had toward this Agency over the last 15 months.

The CHAIRMAN. You will agree it is unusual?
Mr. WADSWORTH. Yes, sir.

WILL DISILLUSIONMENT RESULT FROM TIME REQUIRED FOR DEVELOPMENT?

The CHAIRMAN. Now another subject.

Yesterday Admiral Strauss stated that the United States has some eight agreements to supply power reactors to foreign nations. Isn't there a likelihood that as it is proposed to set these up there will be a long period of time before most states will be able to get fuel for reactors? Isn't it possible that this will result in disillusionment of these nations?

Mr. WADSWORTH. No, sir.

The CHAIRMAN. If they have to wait indefinitely?

Mr. WADSWORTH. I understand the question now, thank you.

I don't believe that it will result in great disillusionment. The reason for that is that we have carefully fostered the idea that this is not going to be an immediate panacea for the underdeveloped areas of the world. We have warned in private conversation as well as in public statement that it takes a long time to develop these things.

We have in private conversations and consultations made sure that the representatives of the underdeveloped countries understand that probably their first projects will be projects of training, projects of getting themselves ready to handle these other more expensive and more important projects, so that quite contrary to the feeling about the United Nations in 1945 that it was going to be the cure-all for everything, I don't believe that there is this overoptimism now in the world about the Agency.

I believe they know that these things must come slowly. They all went to Shippingport, for instance, and they all know how long it takes to build a large reactor. They went to other installations of the Atomic Energy Commission and they learned a great deal about what these things mean. A great many of them were technicians from their own countries who have been working in the atomic energy field and could also put a damper on any overenthusiams that might have been felt by just the purely political or diplomatic people.

The CHAIRMAN. Thank you. Mr. Sparkman?

Senator SPARKMAN. Mr. Chairman, I have a very few questions. I want to commend Ambassador Wadsworth for a very fine presentation and careful explanation and anlysis that he has given us.

DISCRETION OF BOARD OF GOVERNORS REGARDING SUPPLYING OF MATERIALS (ART. IX)

Mr. Ambassador, under article IX, paragraph J, it says that—

No member may require that the materials it furnishes be designated for a specific project.

I want to ask you this: Isn't it possible for conditions to be attached to the use of materials furnished under agreement between the Governing Board and a member in accordance with paragraph A of article IX?

In other words, can't the Governing Board and the member agree to attach specific conditions to the use of materials furnished?

Mr. WADSWORTH. I understand the question.

I think the answer to that, Senator, is that it is technically possible that such agreement as is envisaged under paragraph A, article IX–A, could call for certain limitations on the use of materials, but it is our belief that the Board of Governors in making such agreement with the supplier of material or anyone else would probably be strongly influenced by the concept in paragraph J, and would not make an agreement in which materials would be specifically earmarked for a project unless it were a very unusual type, that there would be only 1 project of its kind or 1 type of material.

I don't know the technical aspects of that. It would not seem that arrangements would be made under paragraph A which would not take paragraph J into consideration.

Senator SPARKMAN. In other words, even though there might be some degree of contradiction as between the two provisions, you think it is a matter of discretion for the Board of Governors, and that the Board would be influenced by the provisions of J?

Mr. WADSWORTH. Yes, sir. This paragraph J does not specifically talk about the agreement made between the Agency and the member. It just says that the member has no right to require. It is a power of the Board to make the decision as to where the materials go. If the supplier country insisted that it would not sign an agreement unless it had the right to specify where materials should or should not go, I would think that the chances are very remote that an agreement would be concluded.

I don't believe that the Board could afford to make exceptions to the general rule of no earmarking.

AUTHORITY OF GENERAL CONFERENCE TO MAKE RECOMMENDATIONS TO BOARD OF GOVERNORS (ART. V)

Senator SPARKMAN. Under article V of this statute, the General Conference is given authority to make recommendations to the Board of Governors of the Agency on any matter relating to the latter's functions.

What would be the force and effect of such recommendations?

Mr. WADSWORTH. It would merely have the force of a recommendation that had been passed by a majority of the total membership of the Agency, and as such would be taken up on the agenda of a Board meeting and discussed at least.

But there would be absolutely no obligation on the part of the Board to adopt such a recommendation.

Senator SPARKMAN. It would be simply a recommendation?

Mr. WADSWORTH. That is correct.

Senator SPARKMAN. To be considered without any binding effect; is that right?

Mr. WADSWORTH. That is right.

RELATIONSHIP OF AGENCY TO THE UNITED NATIONS

Senator SPARKMAN. By the way, this question may have been answered. I was not here at the last session. I had to attend another committee meeting. Just what is the connection between this Agency and the United Nations?

The thing that suggested this question to me was that I was going to ask what effect any recommendation from the United Nations, either the General Assembly or the Security Council would have on this Agency?

Mr. WADSWORTH. The relationship of this Agency to the United Nations is somewhat unique. There has been a strong feeling on both sides of the question as to whether it should become one of the regular specialized agencies, so-called, most of which, as you know, work through the Economic and Social Council of the United Nations.

There was a very determined effort, however, to make sure that it was generally understood that this Agency is not a regular specialized agency, and for that reason the relationship between it and the United Nations is one largely of reporting on an annual basis to the General Assembly and on a need basis to the other organs of the United Nations.

The United Nations may recommend items for the agenda of the General Conference of the Agency; they are required to consider them for the agenda, but they are not required to take any action if they feel that this is not warranted.

Senator SPARKMAN. Again, those recommendations are purely recommendations to be considered without any binding force whatsoever?

Mr. WADSWORTH. That is right. I think I might add, Senator, in connection with this relationship matter that this was one of the most significant withdrawals on the part of the Soviet Union from its previous position, which was that this Agency should be put under the Security Council where of course any one of the five members would have a veto. They withdrew from that position.

Senator SPARKMAN. It has been said in one respect the safeguard devices under the Agency statute are superior to our own, because provision is made for a contractual basis of United Nations action.

Just how would this contractual basis of action operate to insure against misuse of atomic energy materials.

Mr. WADSWORTH. I understand that the Department is making available a letter to the committee in answer to that question, which was asked of Secretary Dulles on the first day of the hearings, and that that will cover it for us.

I am not competent to answer the question.

(See letter, p. 154. Also see p. 71.)

Senator SPARKMAN. Fine. I knew some questions were submitted to him but they were not read and I did not know just what they were.

Mr. WADSWORTH. Yes, sir.

UNITED STATES DELEGATION'S SATISFACTION WITH STATUTE

Senator SPARKMAN. Now just this final question, Mr. Ambassador. I understand that you headed our delegation, did you not, throughout all of the negotiations working up this agreement?

Mr. WADSWORTH. No; not all of them. The first negotiations in 1955 were handled by Ambassador Morehead Patterson. I came into the picture in January 1956.

Senator SPARKMAN. And you have been there continuously from that time on?

Mr. WADSWORTH. Yes, sir.

Senator SPARKMAN. Did you tell this Joint Committee that the solution or the agreement finally arrived at was in every way satisfactory to the United States delegation?

Mr. WADSWORTH. Yes; I can say that without any fear of contradiction. It was completely satisfactory.

UNANIMITY OF 81 NATIONS' FINAL VOTE ON STATUTE

Senator SPARKMAN. I am very much interested in your statement that the vote on the final agreement was unanimous by 81 nations?

Mr. WADSWORTH. Yes, sir.

Senator SPARKMAN. And furthermore, the thing that impressed me, that every single provision in it received a unanimous vote?

Mr. WADSWORTH. No, sir; but there were no negative votes.

Senator SPARKMAN. That is right, you put it that way?

Mr. WADSWORTH. That is correct.

Senator SPARKMAN. There was no negative vote to any one of the various provisions?

Mr. WADSWORTH. That is correct. This showed that there was no opposition strong enough to any of the articles to occasion a negative vote. There were some few abstentions, but very few.

Senator SPARKMAN. Thank you. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Smith?

Senator SMITH. Thank you, Mr. Chairman.

Ambassador Wadsworth, I want to say first in having you here before us that I enjoyed our relationship with you as a delegate to the United Nations and I also want to congratulate you on the wonderful work I feel you have done in studying this whole matter and in giving us such a clear presentation.

WHO TAKES INITIATIVE IN MOVING MATERIALS AVAILABLE TO AGENCY?

Naturally we have questions in our mind. The first question I want to ask is this: Assuming the Agency is set up and assuming that we and other countries put into the pot or designate for the pot a certain number of kilograms of this material, who takes the first step in moving it?

Does the Agency try to canvass as to who wants some or does some country in the world get the inspiration that it would like to have a little atomic energy and come to the Agency?

How does it work practically as a start?

Mr. WADSWORTH. Of course it has not started so we don't know for sure. But I would think it would take very little stimulation on the part of the Agency to have projects and assistance asked for by a good many of the countries who have already expressed interest in such projects.

Senator SMITH. That is my assumption.

WHO WOULD DETERMINE PRIORITIES ON AGENCY'S MATERIAL?

That leads me to the next question. Suppose practically every underdeveloped country and other countries in the world came rushing in and want a share in this pool and there is not enough to take care of them all, even on a modest basis.

Who would determine the priorities? Would that be determined by the producing countries?

Mr. WADSWORTH. The determination on what would be done with an insufficient amount, is that your question?

Senator SMITH. I assume there might be an overall demand from a lot of countries and you could not satisfy everybody?

Mr. WADSWORTH. As a practical matter we don't believe that such an overwhelming demand is possible. As I said a little while ago, the major projects that will be taken on as far as these underdeveloped countries are concerned, will be training projects. It will be some time before any kind of material, even for a research reactor, will be sent out.

Second, even if we could find a great many countries who could afford and have technical competence to run a large project, the building of the reactors and all the other work that has to go into it will still mean a long timelag before materials have to be sent out, so that this could not happen.

However, in the remote possibility that it could happen, the Board would have to make the decision as to which one of the applicants would receive the scarce material.

Senator SMITH. The Board would do that?

Mr. WADSWORTH. The Board would do that; yes.

THE AGENCY AND THE UNITED NATIONS

Senator SMITH. I think the next question I have here was covered by Senator Sparkman. It is worded in this way: What is meant by an "appropriate relationship" between the Agency and the United Nations or its organization in article XVI, section A?

The relationship, which I think you have suggested, and probably the overall answer, would be cooperation with the United Nations rather than controlling emphasis from the United Nations.

Mr. WADSWORTH. Cooperation, but complete autonomy to the extent that such autonomy is possible in any organization.

Senator SMITH. Is there any thought as to what resolutions the United Nations might adopt with regard to the Agency?

What do you visualize as the sort of action the United Nations might adopt in order to say to the Agency, "we don't compel this but we would like to see you do it"?

Mr. WADSWORTH. It is very difficult for me to visualize because the membership in the Agency and the membership in the United Nations will be virtually identical.

Senator SMITH. That is right.

Mr. WADSWORTH. And anything that the United Nations might want the Agency to do, the Agency would probably want to do anyway because its own members are the same.

Senator SMITH. There is no organic relationship then under the statute?

Mr. WADSWORTH. That is right.

Senator SMITH. No organic relationship between the two; I refer to the words "an appropriate relationship."

Mr. WADSWORTH. Yes. The appropriate relationship is to be written in an agreement. The agreement of relationship will be drafted and will be negotiated between the Agency and the United Nations.

Mr. WILCOX. May I just add one word to what Ambassador Wadsworth has said, Senator Smith?

It is anticipated that some of the specialized agencies, like the World Health Organization and the Food and Agricultural Organization, would have an interest in the peaceful uses of atomic energy, and it is conceivable, for example, that the Assembly would pass a resolution urging the Agency to work closely or to cooperate with the other agencies of the United Nations interested in this field.

Mr. WADSWORTH. That is taken care of already in article XVI.

Senator SMITH. This kind of a resolution might be adopted?

Mr. WADSWORTH. Yes; it might be, but I think the Agency would have anticipated that anyway because we provide for relationships with the other international organizations, and this is one of the jobs that the Preparatory Commission has already been working on.

Senator SMITH. You do not feel any apprehension that there is a conflict between what they may do and the act?

Mr. WADSWORTH. No; I do not. The executive secretary of the Preparatory Commission has been attending meetings in Geneva of the group which advises on coordination on all of the activities of the specialized agencies. The interests, the vested interests if you want to call it, of this new Agency is being well represented so that there will not be duplication, will not be overlapping.

IS THE STATUTE SELF-EXECUTING?

Senator SMITH. My next question, Mr. Ambassador, is this: Both Secretary Dulles and Admiral Strauss have testified that the statute is not self-executing and requires implementation and participation by the United States.

Can you give us the general outline of expected participation?

Mr. WADSWORTH. This is a draft of a participation act. It has not yet formally been forwarded to the Congress. We can make it available to the committee or if you would rather have me describe its provisions, I will do so, either way. This is merely a draft and subject to change.

Senator SMITH. Give us the nature of the participation. A lot of Senators have asked me whether this thing is self-executing; whether we are through with it now, or do we have a hand in carrying it out?

What is our participating relationship?

Mr. WADSWORTH. It is not a very long statement. I can paraphrase it I believe.

The act to be the International Atomic Energy Participation Act of 1957: The President, by and with the consent of the Senate, shall appoint a representative and a deputy representative of the United States to the Agency who shall hold office at the pleasure of the President. Such representative and deputy shall represent the United States on the Board of Governors of the Agency, may represent the United States at the General Conference and may serve ex officio as United States representative on any organ of that Agency, and shall perform other functions in connection with the participation of the United States in the Agency as the President may, from time to time, direct.

The President may also, with the advice and consent of the Senate, appoint or designate from time to time to attend specified session or

sessions of the Agency, a representative and such number of alternates as he may determine.

The President may also appoint or designate such other persons as he may deem necessary to represent the United States in the organs of the Agency. He may designate any officer of the United States Government whose appointment is subject to confirmation by the Senate to act without additional compensation for temporary periods as the representative of the United States.

It is that kind of thing all the way through. It merely sets up the machinery whereby the United States participates actively in the work of the Agency.

RELATED PROVISIONS OF ATOMIC ENERGY ACT OF 1954

Senator SMITH. Now, under this pact we are supplying materials for the Agency in conformity with our laws as set forth in article IX, section C.

How does the Atomic Energy Act affect this?

Mr. WADSWORTH. The Atomic Energy Act bears on supplying materials.

Senator SMITH. On supplying materials? If you want to supply materials to country X, do we have any say about that at all or would it be out of our hands?

Mr. WADSWORTH. We understand that sections 123 and 124 of the Atomic Energy Act of 1954, as amended, take care of that.

Senator SMITH. It is not necessary to amend the Atomic Energy Act any further?

Mr. WADSWORTH. We believe that it will not be necessary.

Senator HICKENLOOPER. Will the Senator yield at that point?

Senator SMITH. I will be glad to yield.

Senator HICKENLOOPER. I might suggest you might comment on section 121 of the Atomic Energy Act, which provides in effect that regarding any terms of any international agreement that are in conflict with the Atomic Energy Act, the terms of the international agreement shall prevail and the terms of the Atomic Energy Act shall not apply. That goes right along with your question, and I wanted to raise that at this point.

Senator SMITH. I am glad to yield to the Senator to present that question.

Mr. WADSWORTH. May I ask Mr. Meeker, our legal counsel, to comment on that, please, sir?

Mr. MEEKER. Senator, I think there is not, so far as we are able to discern, any conflict between the statute of the Agency and the Atomic Energy Act of 1954, as amended, so we do not at the present time see any application of section 121 in the Atomic Energy Act.

Senator HICKENLOOPER. May I ask just one more question along that line?

Senator SMITH. I yield.

Senator HICKENLOOPER. I refer to the requirement in chapter 11, which includes section 121 of the Atomic Energy Act, section 123, with its various subparagraphs (a), (b), and (c), among which is the requirement that the President shall find in writing that such

agreement or understanding shall be in the interests of the United States and not detrimental to the United States—I am paraphrasing—and also subsection (c), which provides that the agreements for cooperation shall be presented to the Joint Committee on Atomic Energy accompanied by the determination of the President and for a period of 30 days while Congress is in session, and so forth.

Do you think that those provisions would be applicable to these international arrangements including furnishing of materials?

Mr. MEEKER. Yes, we consider that they do apply. We think that when materials are made available to the Agency, it is required to be done through an agreement of cooperation between the United States and the Agency. That agreement of cooperation would have to satisfy the requirements of section 123.

Senator HICKENLOOPER. Thank you. I thought it might be well to get that in the record, Senator Smith, at this time, in connection with your question.

PROVISIONS FOR KEEPING CONGRESS INFORMED

Senator SMITH. I will leave that subject until Senator Hickenlooper picks it up. This is my third question. What means have been provided to keep Congress informed of the decisions of our representative on the Agency and of the Agency itself?

Is there anything in the act to keep us constantly informed?

Mr. WADSWORTH. There is this provision in the Participation Act:

> The President shall from time to time as occasion may require but not less than once each year make reports to the Congress on the activities of the International Atomic Energy Agency and on the participation of the United States therein.

There is also the provision in section 202 of Public Law 703, which reads:

> Any Government agency shall furnish any information requested by the Joint Committee with respect to the activities or responsibilities of that agency in the field of atomic energy.

So we have at least a regular annual report by the President, and at any time the Joint Committee may request special reports.

Senator SMITH. Thank you.

IS THERE POSSIBILITY OF UNITED STATES LOSS OF INFLUENCE?

My question No. 4: Is it not possible, with the numerous sources of uranium in the world, as Admiral Strauss testified yesterday, and with the increasing technical skills among non-Americans as a result of the training program of the Agency, that we will lose our position of influence in the future?

In other words, when they catch up with us will we be quite as dominant in the field as we seem to be today?

Mr. WADSWORTH. To some extent that may be true. I don't believe that it could ever be a question of catching up because certainly we cannot be expected to stand still ourselves. But it will be true that the training programs and the experience gained by countries under these projects will fit them to catch up at least to some extent so that our dominance in the field will not be as great as it is today.

Senator SMITH. As far as their peaceful developments are concerned, we will welcome that.

Mr. WADSWORTH. This is good, yes.

MEMBERSHIP OF COMMUNIST SATELLITE COUNTRIES

Senator SMITH. Yesterday Mr. Strauss said in answer to a question by me that the Communist satellite countries would be admitted to the Agency if they complied with all of the regulations.

Mr. WADSWORTH. Yes.

Senator SMITH. What advantages are there to the United States in having these satellite countries as members in the Agency, or is that one of the matters you had to yield on in order to get the whole thing agreed to?

Mr. WADSWORTH. No, the original concept in the President's speech of December 8, 1953, said very specifically, and his statements thereafter said very specifically, that this visualizes a truly international organization in which Russia must play its part because of its importance in the field.

Of course the limitation of membership in the United Nations and specialized agencies did, as I pointed out earlier, make certain regimes fail to qualify.

The values to the United States in having Eastern European Communist countries in this agency are several. In the first place, as we have pointed out, the development of this business is going to go on whether we have an Agency or not. There are now, as we understand it, in the Warsaw Pact countries bilateral agreements between the U. S. S. R. and between several of the other satellites.

It is much better in our opinion to have the Agency furnish assistance to a Communist country in Eastern Europe, which then must open its borders to the inspectian and control demanded by the Agency, than it is to have whatever they are doing remain behind the secrecy of the Iron Curtain.

Senator SMITH. There is no danger then of a huddle between Russia, with the source of supply, and some of these countries, putting over some things that the spirit of the Agency does not contemplate?

Mr. WADSWORTH. I don't believe there is, no, sir.

IMPACT OF PROPOSAL OF AGENCY ON UNITED STATES RELATIONS WITH OTHER NATIONS

Senator SMITH. What has been the impact of the proposal of the Agency on United States relations with other nations?

I assume it is very favorable, but I want to get your opinion.

Mr. WADSWORTH. Yes. Secretary Dulles described the acclamation which greeted the 1953 statement of the President, and ever since then we in the United Nations have been receiving continued assurances of their happiness at the initiative we have taken.

Since the opening of the 81-nation conference and moving on right through until today, we are continually being approached by members of the delegations of other countries with kind and flattering words about our initiative in this matter.

I told you earlier this morning of the atmosphere there was in the conference and in these negotiations, and throughout there has been

a full realization that the United States and the United States alone is responsible for this Statute being before you now.

Not alone, that is too strong, but had it not been for the persistence of the United States in carrying through the negotiations we may never have gotten this far.

Senator SMITH. You feel that that relationship will continue under the Agency setup?

Mr. WADSWORTH. Yes, I feel that it will continue and in fact that it will grow.

CONTRACTUAL OBLIGATIONS UNDER ARTICLE IX

Senator SMITH. Mr. Ambassador, what is meant in section E of article XVIII which provides that withdrawal of a member from the Agency shall not affect its contractual obligations entered into pursuant to article XI? Does this refer only to contributor nations, or recipient nations as well, and does it relate only to financial obligations?

Mr. WADSWORTH. It would relate to any obligations entered into pursuant to article XI. In our case, of course, it would be the obligations in the agreement which we would conclude as far as supplying is concerned. It would also be our assessment for the administrative budget for the current year during which we might withdraw.

Senator SMITH. In other words, a country can withdraw from the Agency setup, but it must carry out an obligation which it has already incurred?

Mr. WADSWORTH. I am sorry, Senator. I should make a correction to my previous statement. Article XI has nothing to do with the contractual obligations of the supplier to the Agency. It merely deals in projects, any contractual obligations as to projects. Article IX is the one that I meant, and so I was incorrect in my first answer.

RATIFICATIONS TO DATE

Senator SMITH. Could you tell us, for the record, what nations to date have ratified the statute?

Mr. WADSWORTH. Yes. I cannot give them to you in exact chronological order, but they are Guatemala, Switzerland, Pakistan, U. S. S. R., Byelorussia, and Rumania, and Austria, which just came in the other day. That is seven.

Senator SMITH. What others do you expect before midsummer?

Mr. WADSWORTH. Our estimate is that there would be possibly 30 or 35 more by July.

Senator SMITH. By July?

Mr. WADSWORTH. Yes, sir.

NEED FOR URGENT UNITED STATES RATIFICATION

Senator SMITH. Can you give us information as to the need for speedy United States ratification? Are we being pressed for speedy ratification, or should we take more time to see what other countries would do?

Mr. WADSWORTH. I think the United States should ratify, regardless of what other countries do, but I would be the last to urge any indecent

haste, because I believe that Senators who are going to be called upon to vote on this thing should satisfy themselves that it is something that they should vote for.

Senator SMITH. I think we all feel that way.

Mr. WADSWORTH. And they ought to take enough time to make that clear.

Senator SMITH. I personally am very much impressed by it, and will vote for it, but I think we should know everything we can about it. It is very important. Thank you very much, Mr. Ambassador.

Mr. WADSWORTH. I would add that, if we don't get ratification during this session, it will be very unfortunate from the standpoint of the opinion of the rest of the world. Mr. Dulles spoke of that, of the catastrophic things which would follow refusal to ratify, but, at the same time, undue delay in ratification will also have an unfortunate effect.

Senator SMITH. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Hickenlooper?

MEMBERSHIP ELIGIBILITY

Senator HICKENLOOPER. Mr. Chairman, Mr. Ambassador, on article IV, getting back to the membership eligibility of any of the specialized agencies of the United Nations, I am not at all clear as to why the specialized agencies were brought into this matter. I have heard some explanations, but that is not perhaps a vital objection to this matter, but I see utterly no reason why specialized agencies were included.

Mr. WADSWORTH. The reason, as I understand it, is that the United Nations and its specialized agencies are considered one big family of nations. Some countries, such as Switzerland, have not joined the United Nations, but they cooperate in many of these specialized agencies. Therefore, in cooperating with the specialized agencies, they have demonstrated qualifications of willingness and ability to live up to the statute of the United Nations and to the obligations of the specialized agencies.

Senator HICKENLOOPER. But Switzerland itself is not eligible to join this organization, is it?

Mr. WADSWORTH. Oh, yes. It has already ratified, because it belongs to a specialized agency. Could I expand a little bit, sir?

Senator HICKENLOOPER. I would just like to have that cleared up, because Switzerland is not a specialized agency. It is only one segment of a specialized agency. I wonder where the eligibility for Switzerland would come in. I am not objecting to Switzerland being in, of course, sir.

Mr. WADSWORTH. There are several states which do not today belong to the United Nations, but who are eligible for membership in this Agency. In addition to Switzerland, there would be West Germany, South Korea, South Vietnam, and so forth. I did not understand from your question—Did you think from this that the specialized agencies themselves would become members of this Agency?

Perhaps that was the confusion.

Senator HICKENLOOPER. That is what I want to clear up.

Mr. WADSWORTH. No; the agency itself, the specialized agency, cannot become a member. Members must be states.

Senator HICKENLOOPER. I understood from Mr. Wilcox a moment ago, or it was my understanding, that the illustration used was that the World Health Organization participates.

Mr. WILCOX. I am sorry, Senator; I did not mean to leave that impression. I suggested that the World Health Organization would be interested in the health aspects of atomic energy and the Food and Agriculture Organization would be interested in the food aspects of atomic energy, and for that reason would work with the Atomic Energy Agency. I did not mean to imply that they would be members of the new organization.

QUESTION OF ELIGIBILITY OF RED CHINA FOR MEMBERSHIP

Senator HICKENLOOPER. Then if Red China were recognized and taken into the World Health Organization, a move, I understand, that the Red Chinese have been fostering for some time, it would make Red China eligible to get in by the back-door method; is that right?

Mr. WADSWORTH. No; they still must be accepted. You see, China per se will be a member of this Agency. It is a question of representation rather than of new membership. There is the possibility, which is very remote, that Red China would make a separate application for new membership, whether or not they belonged to any of the specialized agencies.

Membership in specialized agencies is merely a qualification for initial membership. Afterward States do not have to be members of specialized agencies in order to be voted in, in the event they can get enough votes.

Now, Red China has quite often, in various specialized agencies, had her friends make moves to unseat the Nationalist Chinese representatives in that agency and to seat the Red Chinese representatives. These are, of course, strongly opposed by the United States, and we have had no difficulty up to now in keeping them out of all of the organizations that they have attempted to enter.

Senator HICKENLOOPER. Do I understand that Red China's attempts to get into these agencies have been based upon at least one condition, the ouster of the Republic of China?

Mr. WADSWORTH. Yes; because up to the present time they have——

Senator HICKENLOOPER. In other words, they have not applied, regardless of the membership of the Nationalist Chinese Government?

Mr. WADSWORTH. No; they have not. They have attempted to say that they are the Government of China. Therefore, they should represent China in the United Nations and in these agencies.

Up until now they have taken the public position that they would not accept a two-China concept, which would mean that normally they would not make application for a separate membership under some other designation.

SELECTION OF STAFF FOR AGENCY

Senator HICKENLOOPER. The question of selection of staff for this Agency: What will the United States have to say as to what agency or what person will have the responsibility or the authority to pass on the eligibility of American citizens for employment in this Agency?

I raise that question based upon this. We have had, on occasions in the past, some people of rather questionable attitudes, American citizens who have succeeded in worming themselves into the United Nations, and on occasion we would have liked to get rid of them but we found ourselves completely handicapped. In fact, apparently we did not have anything to say about their getting on the United Nations staff. Not a large number were involved, of course; but, in general, what safeguards will we have to see that people who are really dedicated to the principles of the United States in general will serve on the staff of the International Atomic Energy Agency?

Mr. WADSWORTH. We have working arrangements with all the specialized agencies about making known to them the availability of qualified United States nationals. Before a United States national would work for this Agency, he would have to be cleared by the International Loyalty Board under the same procedures that are now used for prospective employees of the United Nations.

Senator HICKENLOOPER. Once an individual is employed and something turns up that this person is, at least from our viewpoint, not desirable as a United States citizen to be employed by the Agency, how would you get rid of him?

Mr. WADSWORTH. If derogatory information comes to our attention about any United States national, we would call it to the attention of the Director General of this organization. He would then have to make a finding as to whether the person involved actually had been acting in such a way as to endanger the success of the project or not living up to his commitment.

Senator HICKENLOOPER. Suppose, as has apparently happened in the past, the ideas of the United States as to what is derogatory information or derogatory conduct and the ideas of the United Nations, for instance, or this Agency differ? What do we do?

Mr. WADSWORTH. Not very much, Senator.

The situations you are thinking of now were not questions of differences of opinion between the Secretary General Hammarskjold and the United States. It was a question of the Administrative Tribunal deciding that they had been improperly separated, and ordering them reinstated or asking for reinstatement and also calling for indemnities.

In practically every single case where we have told the Secretariat of the United Nations that a United States national has some derogatory information about him, we have been successful in having that individual removed from employment. I believe there are some 5 or 6 cases.

Senator HICKENLOOPER. "Every practical instance," that is, "in almost every instance" might not be sufficient.

Mr. WADSWORTH. I know of only five that have not been determined as of this moment. That is not because of any adverse decision but it is because no decision has yet been made on the last 5 or 6 cases which we presented.

Senator HICKENLOOPER. But there is an opportunity, or the authority is there, for this organization to disagree completely with our own attitude in this country as to the conduct of certain hypothetical individuals, let us say, or possible individuals after they once are what you might call frozen in their jobs.

That disagreement would be one where the Agency just did not look at things the way we did as to the matter of desirability.

Mr. WADSWORTH. There is a possibility but as a practical matter there is no probability of such disagreement being at all widespread. Just the same way that the Agency is not going to alienate its best suppliers in other things, they are not going to alienate the United States Government over the possible difference of opinion as to how 1 or 2 or 3 employees are acting.

Senator HICKENLOOPER. It may be a small matter on most occasions, but I submit that it could be a very important matter in the case of perhaps an individual who occupied a very key position?

Mr. WADSWORTH. Yes.

Senator HICKENLOOPER. And who we decided was not working for the best interests of either the Agency, as we conceived it, or the United States.

Mr. WADSWORTH. Generally speaking, any time any country makes a definite complaint about its national in the United Nations, that person is removed.

USE OF WORDS "TERMS" IN ARTICLE IX RE SUPPLYING MATERIALS

Senator HICKENLOOPER. There has been some considerable question about the term in the statute that no contributing nation shall designate projects to which material furnished by that nation shall go.

I am still confused about the word "terms" in article IX. I asked the other day if we could have an explanation of the meaning of that. What was the connotation you put to the word as connected with special fissionable materials furnished to the Agency?

Does it mean price alone or compensation in various ways or does that word "terms" mean that we can prescribe in advance how materials could be distributed, not after we make them available but in advance?

Mr. WADSWORTH. The answer to the original question I believe is now before you, Senator.

Senator HICKENLOOPER. It has just been handed to me. (See p. 154.)

Mr. WADSWORTH. Yes, I know. It was just handed to the staff and that is why it is late.

Senator HICKENLOOPER. I will read it. I don't want to take the time here at the moment but I will read it as quickly as I can. But may I ask you this, Mr. Ambassador? What would be wrong with this kind of an arrangement?

After the Agency is set up and a canvass of the applicants for materials and assistance, technical and otherwise, had been made, for the United States, either after such a canvass or before such a canvass, to say that under proper circumstances we would be prepared to make available from time to time amounts perhaps in total of say 5,000 kilograms of material of 20 percent enrichment; then for the Agency, after canvassing the prospective use of that, to submit to the United States a suggestion that here are certain projects which would require X amount of materials of a certain type.

Are you prepared to make available to the Agency, now that we have laid down the blueprint, sufficient materials within the limitations or our offer to meet those requirements?

In other words, have the Agency lay down the proposed use of that material based upon its investigation, and ask if we would supply it to them under those conditions and for those uses?

Would there be anything wrong with that?

That would not then be violating the provision that after material has been made available to the Agency, we would have nothing to say about its application and use?

Mr. WADSWORTH. As I understand it, you would put something in the agreement between the Agency and the United States.

Senator HICKENLOOPER. I don't know as I would put anything in it. I am merely asking the question.

Mr. WADSWORTH. I am trying to visualize the process here. You say either before or after a canvass——

Senator HICKENLOOPER. May I state it again. I think that was a rather involved dissertation or statement. This statute provides that a nation making materials available to the Agency shall have nothing to say about where they go.

Mr. WADSWORTH. Yes, after the agreement.

Senator HICKENLOOPER. When they make materials available, after they make them available, they have nothing to say about it either, about what the Agency does with it.

Mr. WADSWORTH. That is right.

Senator HICKENLOOPER. Within the other limitations of the statute. I merely asked what would be wrong for the Agency—manifestly the Agency will not want the materials until it has a place to put these materials—what would be wrong with the Agency coming to the United States and saying, "We know you are willing to make a total amount of, let's say, 5,000 kilograms available over a period of time. We here have a proposition that we have looked over in country X or country Y. They want a research reactor. We believe it is feasible. They want a small power reactor. We believe it is feasible. We will O. K. and we propose if the materials are available to our agency to give that country these materials."

Now will you make available to the Agency so much of these materials for that purpose, and thereafter and in reliance upon that representation, the United States could make materials available to the Agency? I mean that would be one means of meeting the objection of many people that all we do is turn this over to an international agency and we lose all control over it except our 1 vote in the Board of Governors and 1 vote in the General Conference.

The CHAIRMAN. I have just received a letter on this subject which is written by Robert C. Hill, Assistant Secretary, Department of State. It is addressed to the chief of staff of the Committee on Foreign Relations, United States Senate, and reads as follows (see also p. 51):

MAY 15, 1957.

DEAR MR. MARCY: During the appearance of the Secretary of State before the Senate Foreign Relations Committee on May 10 on behalf of the statute of the International Atomic Energy Agency, Senator Hickenlooper asked the Department of State to furnish a record of the discussions which resulted in the phrase "such terms" in paragraph A of article IX of the treaty.

This draft of the pertinent part of this paragraph as submitted by the United States at the beginning of the 12-nation negotiating group in February 1956 read "Subject to the provisions of article XV (this deals with reimbursement of suppliers), the members may contribute to the Agency such quantities of fissionable materials as they deem advisable." The United Kingdom delegation offered an amendment that members should "make available" rather than contribute special fissionable materials to the Agency "on such terms as shall be agreed with the Agency." This was unanimously adopted and became what is now the existing language. No further efforts were made to alter this formula at the

81-nation conference in New York the following autumn. The article was unanimously adopted there on October 11.

Senator Hickenlooper stated his understanding that the word "terms" referred to the question of price, and did not refer to the question of utility of the material after it became available to the Agency. This corresponds essentially to our understanding, although the terms could also include such details as transportation, insurance, safekeeping, etc.

The statute provides in paragraph C of article II that the supplier shall notify the Agency of the form and composition of material it makes available, factors which should apply more directly to the utility of the material.

Senator Mansfield also inquired as to how the contractual basis of United Nations action would operate to insure against misuse of atomic materials. The Secretary understood this to relate to the applicability of U. N. sanctions against offenders, and undertook to furnish an answer for the record. (See p. 71.)

The measures that the Agency itself could take in the event of violation of the statute are termination of assistance, withdrawal of materials and equipment, and suspension or expulsion from membership.

In addition, the statute provides that the Board shall report noncompliance to all members and to the Security Council and General Assembly of the United Nations. If the violation was considered to constitute a threat to international peace and security, the matter could be brought by any state to the attention of the Security Council, which could take any action open to it under the U. N. Charter. If action were frustrated by the negative vote of any permanent member, the matter could be brought to the General Assembly for discussion and recommendation under the uniting-for-peace resolution.

Neither the Security Council nor the General Assembly could reverse any preventive or corrective action previously taken by the Agency itself.

Sincerely yours,

ROBERT C. HILL, *Assistant Secretary.*

MR. CARL MARCY,
Chief of Staff, Committee on Foreign Relations,
United States Senate.

Senator HICKENLOOPER. Thank you, Mr. Chairman. I had the letter here but I did not want to take the time to read it.

The CHAIRMAN. I thought it would be well to have in the record.

Senator HICKENLOOPER. Yes. I am glad to have it in at this time. (Also see p. 51.)

TERMS FOR SUPPLYING OF MATERIALS

Mr. Ambassador, I would like to have your comment on that situation or that method of approach to making materials available to the Agency, which I outlined, I hope with sufficient clarity, so that I may be understood.

Mr. WADSWORTH. Yes, I see what you are driving at now. It might be technically possible to do this, but before I comment further on this, could I ask whether it is implicit in your suggestion that if the Agency approaches the United States in this way, the United States also would have the right to say "No, we will not contribute to this project that you think is good."

Senator HICKENLOOPER. Indeed. It is implicit; that is, that that would give us a chance to say we do not care to contribute or make available to the Agency materials for the purpose which you have outlined.

Mr. WADSWORTH. I see. Well, the difficulty of course that we would find with that is that it would be contrary to the spirit of paragraph J of article IX.

A truly international organization, if it goes into a system of earmarking and steering, would make it extremely difficult, too, on an administrative basis, for the Agency to run its work. If we turned

down a project, it would have to go to somebody else and try to get them to do it. If every potential supplier would insist on this precondition in making material available, I think you would get into chaos fairly soon.

Senator HICKENLOOPER. I don't quite follow that because I don't conceive of this Agency wanting to pile up a great deal of material to no present purpose?

Mr. WADSWORTH. No.

Senator HICKENLOOPER. They would only need material when they had a place to put it?

Mr. WADSWORTH. That is perfectly correct and that is the way it is going to work under the system we have now.

In the first place, the United States is going to be extremely familiar with a project by the time the Agency makes up its mind that it is a feasible project. We will know all about it. We will have the right in the Board of Governors to state our views on it and we will have very, very considerable influence on whether the Agency is going to accept the project or not. We have a much stronger protection there than you seem to believe.

Senator HICKENLOOPER. I don't discount our influence, but I submit that we have no assured effect, 1 vote in each of the 2 bodies, but I do not discount the very strong influence that the United States is bound to have.

Mr. WADSWORTH. That is right. What I was saying about the chaos was this: I meant if one supplier refused, having known all about the project for perhaps months, then the Agency would have to shop around to find out where it could get the material. Pretty soon you would have a very difficult administrative problem.

Senator HICKENLOOPER. It would seem to me, if the United States voiced an objection to a project in the Board of Governors——

Mr. WADSWORTH. It probably would not go through.

Senator HICKENLOOPER. Well, if it went through, the Agency would certainly not apply to the United States for material.

Mr. WADSWORTH. No; that is true; it probably would not, but I don't think it would go through anyway.

Senator HICKENLOOPER. We are just speculating here, but I would speculate that the application would never be made to the United States, or the suggestion would never be made to the United States to supply materials which the Agency already knew in advance that the United States disapproved of, from a practical standpoint.

Mr. WADSWORTH. That is why I said technically it could work.

Senator HICKENLOOPER. We are going to have to take a lot of things in this statute from a practical standpoint.

Mr. WADSWORTH. Yes, but I would like to make it clear that it is almost that way now. The United States does not shovel a great bunch of material into the Agency depots and leave it there. The United States will hold this material right here, as Chairman Strauss indicated. In fact, you take this stuff out of current production rather than stockpile it and earmark it for the Agency. When a project comes along that is feasible, the Agency merely asks the United States to ship it to that project.

Senator HICKENLOOPER. I do not quite follow that in reading the statute. Once we make it available, as the statute now reads, we lose all control over it except our vote and our influence. We make 5,000

kilograms available; I mean formalize the making of 5,000 kilograms available, and we get nothing more to say about it, except the expense of storing it here. We store it, but we have got to give all or any part of it to the Agency for a project which they determine.

Mr. WADSWORTH. To a project which is approved by the Board of Governors; that is right.

Senator HICKENLOOPER. That is right, but we have nothing to say as a nation about approving projects. Of course, we have a vote; I understand that. We have a vote in both bodies and we have influence which I, of course, readily admit would be, I am quite sure, very great. Am I waiting for an answer or are you waiting for me?

Mr. WADSWORTH. I am sorry, sir. I think that Mr. Gerard Smith, the Special Assistant to the Secretary of State for Atomic Energy Matters, has one addition here which will help clarify the record.

Senator HICKENLOOPER. I would be very glad to hear it.

Mr. SMITH. As we see it, Senator Hickenlooper, there would be plenty of room in the supply agreement to spell out terms and conditions under which we would make this material available. The one taboo is that in that agreement you cannot say everybody that gets this has to have black hair or some similar stipulation and so can't have this.

Senator HICKENLOOPER. Why not? Is it beyond the power of the Agency to enter into such an agreement?

Mr. SMITH. No.

Senator HICKENLOOPER. The prohibition, as I see it on——

Mr. SMITH. It can be done by mutual consent, but it cannot be done as a matter of right. If the Board of Governors theoretically said to the United States, "Let's you and I make an agreement that this material could only go to Mexico," I would guess under the statute such an agreement would not be unconstitutional. It would be a foolish agreement, but I think it can be done.

Senator HICKENLOOPER. You think it could be done? That is, if the agreement were made prior to this country making the materials available; is that right?

Mr. SMITH. I think the supply agreements have to be made before the material is made available; yes.

Senator HICKENLOOPER. Once the material is made available without any specifications of that kind, then the supplying country loses all power under this statute——

Mr. SMITH. Not all power.

Senator HICKENLOOPER. To approve or disapprove the purposes to which this material would be put?

Mr. SMITH. Not purposes. I would say the project into which it would be put. That is the only limitation, as I read it.

Senator HICKENLOOPER. The purposes, in general, are outlined in the statute. Those are quite clearly set out, I think, but it is the question of the project. If the material is once made available without any designation of particular projects, then the contributing country has nothing to say about it after it has been made available. My whole question goes to the possibility of agreements or understandings between the Agency and the supply country prior to the time that the supplying country makes the materials available, and as conditions upon which the supplying country will say under those

circumstances, "We now make X kilograms available to the Agency," and then makes material available.

Mr. SMITH. I don't think, Senator, that you could ever expect a Board of Governors of this composition to make such an arrangement with one member of the Agency in complete violation of the spirit of article IX (J). I suppose, theoretically, if you assume it would not be bad faith but it would be a peculiar attitude to the other members of the Agency, that you could get a Board of Governors theoretically to do that. Practically, I don't think so.

HOUSING FOR THE AGENCY

Senator HICKENLOOPER. With respect to article IX, paragraph I (5), the word "housing" is referred to. The paragraph states that the Agency shall, as soon as practicable, acquire such of the following as may be necessary—men, materials, and so on, the last item listed being: "Housing and administrative facilities for any staff required for the foregoing."

Is the Agency going to use Agency funds to buy houses for the employees?

Mr. WADSWORTH. This is just the office space. Oh, yes; housing would possibly be in remote storage locations and so forth. You might have to put up housing for guards that are taking care of a large quantity of fissionable material.

Senator HICKENLOOPER. What is the interpretation of that? That, it seems to me, could be reasonably interpreted as providing houses, apartments, or something for every employee, of every category.

Mr. WADSWORTH. The limitation is largely budgetary. It has to be O. K.'d by the Board and by the whole General Conference, which is very economy-minded.

Senator HICKENLOOPER. Do we understand, then, that it is the understanding of the Department, and the feeling on which this was put in, that housing would refer only to remote occasional areas where——

Mr. WADSWORTH. Where there was nothing else available; that is right; yes.

Senator HICKENLOOPER. Or housing for Agency facilities?

Mr. WADSWORTH. That is correct.

Senator HICKENLOOPER. It was not intended to apply to the furnishing of housing for all employees of the Agency?

Mr. WADSWORTH. In Vienna, for instance, not at all.

Senator HICKENLOOPER. Or in New York?

Mr. WADSWORTH. New York won't have much of any Agency work.

SERVICES, EQUIPMENT, AND FACILITIES—ARTICLE X

Senator HICKENLOOPER. Article X, on services, equipment and facilities, reads as follows:

> Members may make available to the Agency services, equipment, and facilities which may be of assistance in fulfilling the Agency's objectives and functions.

That is a very, very broad statement. Would the Agency be expected to pay for those services, equipment, and facilities which are of assistance in fulfilling the Agency's objectives?

Mr. WADSWORTH. Only if they made an agreement to that effect.

Senator HICKENLOOPER. Do we contemplate, at the moment, the furnishing of a lot of technical assistance and machinery and things like that to the Agency, which is entirely outside of the furnishing of nuclear materials?

Mr. WADSWORTH. There might be furnishing of trained personnel, of training services.

REIMBURSEMENT—ARTICLE XIII

Article XIII of course mentions all of this being furnished on a reimbursable basis. On equipment that would come into a project any equipment needed at the project, of course that too would be reimbursed.

Facilities, there might be buildings of one kind or another in some of the member states that would be made available for the use of the Agency, and that of course would be reimbursable also under the agreement.

Senator HICKENLOOPER. So that in general it is contemplated—I realize there might be some exceptions, but in general it is contemplated—that article X envisions reimbursement on these things?

Mr. WADSWORTH. Yes, sir.

Senator HICKENLOOPER. I raised this question the other day; I raised it a couple of times I guess.

Article XIII goes directly to the question of reimbursement, and that first phrase "Unless otherwise agreed upon," compensation or reimbursement shall be given to members furnishing materials. It seems to me that that "Unless otherwise agreed upon," is a wide open door for the possibilities of a lot more bounty. That is based on my statement of a few days ago concerning the emphasis on the undeveloped countries and the fact that they probably are undeveloped because they don't have the money to develop their resources. Where are they going to get the money to pay the Agency, and the Agency, in turn, to pay us for the materials which we furnish?

Mr. WADSWORTH. As I remember, there was a question like that yesterday too, wasn't there?

Senator HICKENLOOPER. Yes.

Mr. WADSWORTH. We believe that it would have been wrong to write into this statute or to make it impossible under this statute for any country voluntarily to give something, whether it be services or facilities or otherwise.

It is entirely possible to visualize countries not in the same position as ours being willing to loan a man to help out with training or to give physical facilities at $1 a year, practically a donation. We did not think that that should be discouraged, and I still don't think it should be discouraged.

It does not imply that there is not any possibility of payment. We have for a long time recognized, even in our bilaterals, that there are certain limitations on the part of recipient countries, and for that reason, as I understand it, each of our bilateral agreements carries a definite offer of a gift of a large sum of money in order to help finance these agreements, on research reactors, if I am correct—for that sort of thing.

Now the high priority placed on atomic development by underdeveloped countries—and there too it will be a long, long time before

they get into the expensive work—will lead them to devote some of their finances in this direction, and there will be greater incentives for them to devote their resources to this purpose as time goes on.

At the same time, it did not seem right to us, and does not today, that we should preclude the possibility of any country, those that can best afford it or those that can ill afford it, to make a contribution at less than cost or for nothing at all to this Agency.

Senator HICKENLOOPER. I understand that. In our bilaterals, however, we could change the law whenever we wanted to. We have control of that. In this document it becomes a treaty, and it is a treaty for a long, long time, and there is a difference between opening this thing up to a great international expense which we cannot change from time to time. We can withdraw, I understand, which would result in disturbing this whole situation, but there is that difference between our so-called bilaterals and our technical cooperation programs and things like that, because they are as a common result of statute but not a treaty, and this is a treaty.

That is why I think it is important that we have some clear understanding as to the administrative attitude of this thing and what our policies will be, because if this goes into effect and if it has anywhere near the happy effect that you envision, a lot of people for the next good many years are going to have charge of policy in a discretionary way in this matter.

I think at the inception of this we should get some clarification as to what the guiding policies, in the main, should be in this matter, rather than to leave it up to the whim or caprice of someone in a policymaking position on this matter in years to come.

It would be very helpful.

Mr. WADSWORTH. Of course the basic consideration is reimbursement. That is what we start from. That is what we have said all along. We did not preclude the possibility of somebody some day wanting to give the Agency something, whether it might be nuts and bolts or a large amount of very expensive material.

The basic consideration is appropriations, too, and in that of course, there is a very strong factor of congressional approval.

I think we also should comment that as far as bilaterals are concerned, it is true that we can change the terms of bilaterals, but only if our partner in the bilateral agrees to the change, and they might not.

In fact, as I understand the negotiations——

Senator HICKENLOOPER. We could stop the program any time we want.

Mr. WADSWORTH. We could also stop this.

Senator HICKENLOOPER. We could stop the program of bilaterals or we could stop the entering into bilaterals under certain conditions. Once we make a contract, of course we keep it.

Mr. WADSWORTH. Once they have accepted the $350,000 it would be pretty difficult to stop it.

Senator HICKENLOOPER. That is very true, but you say we could stop the program. Once we have made a contract under the law, we will keep our contract whatever it is.

Mr. WADSWORTH. Yes, sir.

Senator HICKENLOOPER. If we promised them so much money legally, we will give them the money; that is our program. But we

have control over the idea. In a treaty we lose control over it except under certain drastic remedies which we could take in denouncing a treaty or something of that kind.

Mr. WADSWORTH. We do not think that there would be anything more drastic in our possible actions here, sanctions or withdrawal, as far as we are concerned, as the action we could take with bilaterals.

We can stop contributing anything to this Agency for any purpose for any price.

Senator HICKENLOOPER. That is right.

Mr. WADSWORTH. So I think we are well covered with that. I really do.

Senator HICKENLOOPER. I merely go back over the years and know that we have written in the statutes, in the enabling acts from time to time, certain guiding principles that the nations under certain circumstances should pay for what they get.

Yet there is a loophole in them, and on some occasions representatives of this Government with an American checkbook have gone around forcing money on people, contrary to the general intent and thought of Congress at the time the statutes were passed.

There may be no way to prevent that. There may be no way to prevent some representative from this country forcing these things on these countries or making these things available without payment, if they so desire.

As I say, there may be no way adequately to protect against that, and it may be in the last analysis a human factor involved, a discretionary matter.

PRIVILEGES AND IMMUNITIES—ARTICLE XV

Article XV, privileges and immunities. I wish we could have in the record some definition as to what privileges and what immunities people are going to have.

Is it diplomatic immunity or just what?

I asked that question of the Department.

Mr. WADSWORTH. I would like to ask Mr. Meeker to answer that.

Mr. MEEKER. Senator, article XV is based on a comparable provision in the Charter of the United Nations. Specifically in answer to your question about the nature of the privileges and immunities, under article XV they will not be diplomatic privileges and immunities.

In the later part of the article, it is provided that there are to be agreements made between the Agency and member states which will define precisely the privileges and immunities which are to be granted.

We contemplate naturally that there will be a headquarters agreement between Austria and the Agency, and I suppose the Agency may have comparable agreements with some other countries where it has substantial activities.

In the United States in the foreseeable future it may not have any substantial activities or establishments.

Coming back to paragraph A and also to paragraph B, the reason for the presence of those two paragraphs in the article along with C is to cover the situation in the absence of some agreement and there I presume that such matters would be covered as immunity from process with respect to their official actions. But it would not be anything like diplomatic immunity.

Senator HICKENLOOPER. But in any event it is to be agreed with each country, is that the case?

Mr. WADSWORTH. Mr. Meeker?

Mr. MEEKER. Paragraph C provides for the making of agreements which will set out the privileges and immunities to be enjoyed by the Agency, by representatives and by officials of the Agency. In the absence of such agreement or before such agreement is made, paragraph A and also paragraph B will confer certain limited and necessary immunities on the people concerned and on the Agency, falling, however, far short of diplomatic immunity.

MEANING OF "MEMBERS" IN ARTICLE XV, PARAGRAPH C

Senator HICKENLOOPER. I think I raised the question privately with Ambassador Wadsworth the other day about what the word "members" means in paragraph C, article XV.

Mr. WADSWORTH. Yes.

Senator HICKENLOOPER. I would like to have that stated for the record, if possible. Does that mean the Agency will make an agreement with itself; that is, with the conference, or will the agreements be made bilaterally in each case between the Agency and the member state?

Mr. WADSWORTH. The latter is the correct interpretation. There will be individual agreements with each member.

STATUS OF RATIFICATIONS

Senator HICKENLOOPER. Only 1 of the 5 countries essential to put this agreement into effect has now ratified the instrument of ratification; is that correct?

Mr. WADSWORTH. That is right.

Senator HICKENLOOPER. That is the U. S. S. R.?

Mr. WADSWORTH. Right.

Senator HICKENLOOPER. What is the state of the consideration of this statute in Canada, France, and the United Kingdom?

Mr. WADSWORTH. If you do not mind, I think we would like to submit that to the committee in writing. We want to get the very latest news for you. Some of the information might be classified.

Senator HICKENLOOPER. That is perfectly all right. I merely want that for the record. That is the purpose of this. Have you any comments that might be made as to why Canada has not rushed in to ratify this statute, which is believed by many to have some promise, and why Britain has not rushed in to ratify?

Mr. WADSWORTH. There is a difference between ratification and deposit, sir.

(The following letter was subsequently received from the Department of State:)

DEPARTMENT OF STATE,
Washington, May 20, 1957.

Mr. CARL MARCY,
Chief of Staff, Committee on Foreign Relations,
United States Senate.

DEAR MR. MARCY: During the hearings on the International Atomic Energy Agency statute before the Senate Foreign Relations Committee on May 15, Senator Hickenlooper inquired as to the present status of consideration of the

statute by Canada, France, and the United Kingdom. Ambassador Wadsworth asked permission to submit his reply in a subsequent communication, a procedure acceptable to the Senator.

We understand that the necessary constitutional procedures for ratification have been essentially completed by the appropriate legislature and governmental bodies in both the United Kingdom and Canada. However, these processes have not been concluded to the extent that instruments of ratification have yet been deposited in accordance with article XXI of the statute. I am informed that in France, the statute has not been as yet discussed in the Parliament.

Sincerely yours,

ROBERT C. HILL, *Assistant Secretary.*

Senator HICKENLOOPER. I want to raise just two more questions, and so far as I know that will cover the questions that I have to ask here, for the record, although there might be some more.

I was hoping to submit other questions to you, as they occur, for placing in the record. I would hope it would not be necessary for you to have to come back again. It could be done that way.

Mr. WADSWORTH. Yes.

BENEFITS TO RECIPIENT COUNTRIES

Senator HICKENLOOPER. Of course I can understand your enthusiasm for this statute. But of the 81 countries who have ratified or signed, even enthusiastically signed this agreement, all but about 5 of those countries will get nothing but benefit out of it, so there would be every inducement for them to sign it. Isn't that true?

Mr. WADSWORTH. That is perfectly true.

Senator HICKENLOOPER. They will be contributing nothing to it, pay or otherwise, unless in the long distant future they might develop processes under their own power which might be helpful sometime. But for the foreseeable future, all but about 4 or 5 of these countries will be on the receiving end of this.

Why would not they enthusiastically sign it?

Mr. WADSWORTH. No. 1, they have to pay for what they get. That is the basic premise of article XIII.

Senator HICKENLOOPER. Unless otherwise agreed.

Mr. WADSWORTH. Unless otherwise, that is the basic premise.

No. 2, they have agreed to a quite strict control system. They are not merely receiving; they are also giving in cooperation in that regard.

This is sort of a working model of what we hope will be the way of handling the disarmament problem as far as control is concerned. If some of these countries never put in a nickel in money or in materials, their example to the rest of the world will be extremely valuable to all the rest of the world.

It is true that a great many of them are not going to contribute anyhing. But each project as it goes along will contribute something to the sum total of our knowledge.

QUESTION OF WEAPONS DEVELOPMENT POSSIBILITY

Senator HICKENLOOPER. I don't know that I am clearly convinced that this will preclude the possibility of weapons development in the world.

I base that statement on the fact that we have 30, 40, 50, 60, 70, or 80 nations, or any number, that gain proficiency in handling nuclear

materials. That very proficiency will put them far along the road toward independently at some time producing atomic weapons.

Many of them may never be able to do it, but there are nations that have little or no competency in atomic science today that, with aid and assistance and development, have the capabilities eventually of producing atomic weapons.

It might possibly—and I am merely suggesting this possibility—be like a stronger nation that could preserve the peace in underdeveloped or less developed nations by having rifles when the underdeveloped nations did not have them; but when the underdeveloped nations got the competence or finances to secure rifles of their own, there might be trouble. There might be that possibility.

With the increase of the knowledge of this science and the ability to handle these materials—not on the part, necessarily, of all the 81 countries, because many of them will never develop this proficiency, but quite a number of them could go from an ability to handle these materials in the power reactor stage or something of that kind on to the ability to produce materials that would go into weapons—if it took that turn, it would increase the danger of international destruction rather than diminish it.

I merely submit that I think there is another side of that coin, which I hope will never develop, but there is always the possibility.

Mr. WADSWORTH. If I may comment on that, Senator, there is another side to the coin, peaceful uses. There is no question about that. There is nothing in this statute which would prevent today any other fourth, fifth, or sixth country from embarking on a weapons program independently, as soon as they would be competent to do so.

Senator HICKENLOOPER. I understand. Even without this statute they can do that.

CHANNELING OF PEACEFUL USES OF THE ATOM INTO AN INTERNATIONAL ORGANIZATION

Mr. WADSWORTH. Even without it, they can do that. What we are trying to do is to channel the whole program of peaceful uses into an international organization where the full, broad light of day will be on practically everything that is done, rather than have them off in holes and corners around other parts of the world.

I believe that as the work of this Agency develops and as the acceptance of international control is spread over all these recipient countries, it will be definitely a strong deterrent to embarking upon weapons programs. There are very few countries today outside of the three that make them that have any desire to go into a weapons program, even those that might be technically competent to do so. We think there will be fewer and fewer who would desire to do so as this idea of atoms-for-peace spreads.

Senator HICKENLOOPER. It seems to me that the papers, at least, have carried stories in the last few days on the number of countries that are now applying to the United States for atomic warhead weapons.

They want them in their countries for their own security. And there is a tendency on the part of the average person, at least in our country, and I think it is human nature, to do the best he can to protect himself and to secure whatever means of self-protection he can get. Sometimes that gets out of hand.

THE AGENCY AND THE BILATERAL AGREEMENTS

Just one more thing. I don't follow the statements that have been made here that this program can go along hand and hand with the bilaterals. If this treaty is entered into, I raise the question, won't it blot out and obliterate the bilateral program of the United States as we envision it and as it is now in effect?

In other words, as I suggested yesterday, won't countries discard the bilaterals in favor of a feeling that there may be a more favorable or more advantageous contact with the Agency?

I don't see how the bilateral program, as such, as it is conceived now, can survive with this statute in existence and we as a participant in it.

Now it may be able to, but it seems to me that the Agency and the bilaterals are competitive, and that the one that offers the greatest advantage will survive. And perhaps the Agency may offer the greatest advantage to participating nations.

Mr. WADSWORTH. Could I ask Mr. Smith to comment on that?

Mr. SMITH. Senator, I would think that in the early years the motivation will perhaps be the other way, that countries will see that they can make a better deal or think they can make a better deal directly with the United States rather than through this international agency where they would have to get the approval of a 23-man board of directors, let's say, to get a commitment for material.

I would think that in the early years countries with which we are on a friendly basis, countries that we have special relations with, such as Belgium, will certainly not want to switch to this interantional Agency to make their claim with claims from 70 other countries.

On the other hand, I don't think we want to take a policy in our bilaterals to undercut the Agency, to deliberately try to make our bilateral route more attractive, because we will have, I think, quite a moral obligation to be a good member of this Agency and not try to undermine it.

It seems to me that countries that are advanced now, that can be in a position to build power reactors in the next 5, 6, or 7 years will probably find it to their advantage to try to make a bilateral arrangement with the United States.

I think that in the early years this Agency ought to be, as Lewis Strauss pointed out yesterday, devoting itself to training, perhaps developing research and development capabilities around the world, and only gradually getting into the large scale field that the bilaterals will be covering during that period.

DOES EXISTING LAW PREVENT GIVING AWAY FISSIONABLE MATERIALS?

Senator HICKENLOOPER. There is just one more question that I thought we had answered the other day, but I guess not.

Is it your understanding that the Atomic Energy Act today, or the laws, prevent our giving away materials without compensation or act of Congress?

Mr. SMITH. As I understand it, the Commission has written a letter to the Joint Committee stating that it is not clearly authorized under the act to make any substantial gifts of fissionable material abroad.

Senator HICKENLOOPER. How would this treaty, if it were adopted, affect existing law?

Mr. SMITH. I understand from our learned counsel here that he has looked at the statute and looked at the law and concludes that there is no inconsistency and therefore no effect.

Senator HICKENLOOPER. Under the treaty then, could we make these materials available without compensation?

Mr. SMITH. If we can't without the treaty I would say we can't now. If we can under our laws, then we could.

Senator HICKENLOOPER. I am interested in what the interpretation is on that as to the record here.

Mr. SMITH. I think the State Department is quite happy to rest with the intepretation that the Atomic Energy Commission has made of the act under which it operates, which is that it does not have such clear-cut authority.

Senator HICKENLOOPER. I think this would require the consent of the Joint Committee. In any event, Mr. Chairman, I think it would be helpful if that letter of the Commission on this subject could be made a part of the record here.

The CHAIRMAN. Without objection it will be so made.

(The letter referred to is as follows:)

UNITED STATES ATOMIC ENERGY COMMISSION,
Washington, D. C., February 15, 1957.

Hon. JOHN O. PASTORE,
Chairman, Subcommittee on Agreements for Cooperation, Joint Committee on Atomic Energy, Congress of the United States.

DEAR SENATOR PASTORE: Please refer to the letter of January 5, 1957, from you and Senator Anderson, requesting the views of the Commission as to its authority under the Atomic Energy Act of 1954, as amended, to make a gift of special nuclear material without direct congressional action.

Section 54 of the act authorizes the Commission to cooperate with any nation by distributing special nuclear material and to distribute such material subject to the terms of an agreement for cooperation to which such nation is a party. The General Counsel of the Commission advises that examination of other sections of the act and the legislative history does not reveal that the precise method of transfer (i. e., by sale, lease, or gift, etc.) was specified. Congress wisely permitted a degree of flexibility as to the means of transfer. Thus, the Commission, in fulfilling its statutory responsibilities to foster research and development on the peaceful application of atomic energy, could, for example, make modest gifts of special nuclear material for use in research under an agreement for cooperation made in accordance with section 123 of the Atomic Energy Act of 1954, as amended. It is the General Counsel's view, however, that the act does not clearly provide authority for a gift of special nuclear material involving substantial quantities and large sums of money.

Accordingly, the General Counsel has advised the Commission that should it wish to provide for a gift of a substantial quantity of special nuclear material in an agreement for cooperation entered into under the Atomic Energy Act of 1954, as amended, explicit congressional authority should be obtained. The Commission does not presently have such a proposal before it.

Sincerely yours,

LEWIS L. STRAUSS, *Chairman.*

ACCEPTANCE OF STATEMENT OF REPRESENTATIVE STERLING COLE

Senator HICKENLOOPER. Mr. Chairman, I think that is all I have to ask at this time, but just before I close I have been handed a statement by Representative Sterling Cole, of New York, who is a member of the Joint Committee on Atomic Energy who is now in Tokyo handling the industrial conference there and, therefore, is not able to be present.

He has a statement that he has asked me to include in the record at the close of this session today if that is all right. Mr. Cole would like to have been here to testify as a member of the joint committee, and, of course, we invited members of the joint committee of the House to come and testify if they wanted to. This is his testimony.

The CHAIRMAN. If there is no objection, it will be made a part of the record.

Mr. WADSWORTH. I would like to add one thing in connection with Congressman Cole's testimony. He and Congressman Kilday and Senator Pastore were members of the United States delegation in an advisory capacity to the 81 nations conference.

Senator Bricker was also named but due to the exigencies of the campaign was not able to attend.

All of these congressional representatives were extremely valuable to the United States delegation and we were very glad indeed to have them with us.

I wanted that placed upon the record.

The CHAIRMAN. Thank you very much, Mr. Ambasador, for your testimony.

We will now adjourn until next Monday at 10 o'clock in the morning. At that time in this room we will hear a statement by Commissioner Thomas Murray of the Atomic Energy Commission. Thereafter the committee will receive statements from a number of nongovernmental witnesses.

This meeting stands adjourned.

(Whereupon, at 12:35 p. m., the committee was adjourned, to reconvene at 10 a. m., Monday, May 20, 1957.)

(The statement of Representative Sterling Cole referred to above is as follows:)

STATEMENT BY REPRESENTATIVE STERLING COLE (REPUBLICAN, NEW YORK)

Mr. Chairman, I have requested permission to file this statement with you in connection with your hearings on the statute on the International Atomic Energy Agency. Although I would have preferred to have presented it in person, I shall be in Tokyo attending a conference on the peaceful uses of atomic energy, which is being jointly sponsored by the Atomic Industrial Forum and the Atomic Industrial Forum of Japan—a most commendable method to advance mutality of understanding, interests, and objectives in connection with the peaceful atom.

There is one question of the greatest importance before the Congress this session. This is the ratification of the Statute of the International Atomic Energy Agency. No other problem, issue, or question before the Congress is more positively linked to the economic and political stability of the world for decades to come than is the international atom.

THE PRESIDENT'S 1953 PROPOSAL

This agency received its inspiration in President Eisenhower's electrifying address to the General Assembly of the United Nations on December 8, 1953. This address was made at a time when all efforts to reach international agreement on atomic disarmament had reached a stalemate and the hopes of the world were at a low ebb. At that time the President offered the plan of having the governments principally involved make joint contributions from the stockpiles of normal uranium and fissionable materials to an International Atomic Energy Agency, which might be set up under the aegis of the United Nations. President Eisenhower said:

"I would be prepared to submit to the Congress of the United States, and with every expectation of approval, any such plan that would:

"First. Encourage worldwide investigation into the most effective peacetime uses of fissionable material, and with the certainty that they had all the material needed for the conduct of all experiments that were appropriate;

"Second. Begin to diminish the potential destructive power of the world's atomic stockpiles;

"Third. Allow all peoples of all nations to see that, in this enlightened age, the great powers of the earth, both of the East and of the West, are interested in human aspirations first, rather than in building up the armaments of war;

"Fourth. Open up a new channel for peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved in both private and public conversations, if the world is to shake off the inertia imposed by fear, and is to make positive progress toward peace."

It was principally from the basis of this last expectation, that the nations of the world could begin to find some small area in the atomic energy field in which they could reach international agreement, that the hope of the world was rekindled. We have all followed the development of the Agency since that day and I have been extremely thankful that the idea has taken root and flourished.

ACTION SINCE 1953

When the Atomic Energy Act of 1954 was under preparation, the Joint Committee on Atomic Energy wrote into the bill provisions enabling the United States to enter into agreements for cooperation with other nations in the peaceful uses of atomic energy. Wanting to encourage the idea of the International Agency, we also included a section in the law (sec. 124) which would permit the United States to enter into agreements for cooperation with the Agency once it had been approved by the Congress. The Joint Committee included in the bill statutory authority for the International Atomic Energy Agency on its own initiative and not as a result of any request from the President. Although the President was the one who first proposed the idea of an International Atomic Energy Agency, it was the Joint Committee and the Congress which drafted and enacted the statutory authority and procedure for giving substance to the idea.

As the various drafts of the statute for the Agency were written, the Joint Committee received full information on the progress of developments from the State Department. In July of 1955, just before the Joint Committee left to attend the International Conference on the Peaceful Uses of Atomic Energy at Geneva, Ambassador Morehead Patterson came before us and told us about the draft as it had evolved to that point. During the 10th General Assembly of the United Nations, the first committee held considerable debate on the method of formation of the Agency. The United States participated in this debate but, even more important, was one of the main leaders in the debate. A resolution, approving the idea of the International Agency and recommending that there be an international conference called to consider the final draft of the Agency, was adopted by the General Assembly without opposition.

Thereafter, a 12-nation drafting session was held in Washington in the spring of 1956, during which time the ideas of India, Russia, Brazil, and many of the nations who were not participating, but who had made comments, were incorporated into the statute. The statute was approved by the drafting session without objection. After the drafting session, Ambassador James J. Wadsworth came before the committee and described the work that had been performed in perfecting the statute to that point.

The Joint Committee has been kept fully informed at all times with respect to the purposes, powers, responsibilities, and limitations of the Agency and at no time was any criticism or objection voiced by the Joint Committee.

Last fall, the conference on the statute of the International Agency was held at the United Nations in New York. After a month of debate, directed both to the general and to the specific provisions of the statute, and during which time many further but minor amendments were added to the statute, the statute was approved for ratification without objection by 81 nations. By the end of the period, during which the statute was open for signature, 80 of the participants in the conference had signed. Ratifications have begun to be deposited with the United States as the depositary nation. Russia not only signed, but she has ratified and approved the treaty.

CONGRESSIONAL ADVISERS—1956 CONFERENCE

I was fortunate to be able to attend the conference as 1 of 4 congressional advisers to Ambassador Wadsworth. The other three advisers designated by the Congress were Congressman Kilday and Senators Bricker and Pastore. I believe Ambassador Wadsworth and his staff did an excellent job in negotiating the statute at the conference.

That conference provided a remarkable opportunity to watch the other nations in their confidence of the future of atomic energy and of the Agency. There was an obvious and overwhelming desire among all the nations to make the Agency a workable and sound organization for the international development and the future international control of the peaceful uses of atomic energy. More than anything else, at that conference, I was impressed by the tremendous desire of all the nations involved to reach a common conclusion on the problems. Almost as great was the feeling that atomic energy will bring many great blessings to the peoples of the world.

Since the closing of the conference on October 26, 1956, the preparatory commission has been busily at work getting ready for the first general conference of the International Agency. In the preparatory commission, I am told, the same attitude by the participating countries has continued; the same unanimity of desire to get ahead; the same willingness to seek solution to common problems acceptable to all. It is against this background that I wish to discuss the future of the Atomic Energy Agency.

The President, on March 22, transmitted the statute of the Agency to the Senate to be ratified as a treaty. This means that there must be 64 votes in favor of the statute. I believe that this Agency is a tremendous beneficial force for the future of our country, and for the future of the world and that the statute should be ratified.

MISUNDERSTANDINGS OF STATUTE NOTED IN PRESS

There have been a few major points of misinformation or incomplete information about the statute mentioned in the press. I would like to discuss the major points of misunderstanding.

First of all, the idea that this Agency will automatically be open to membership by Red China must be quickly dispelled. The 10th General Assembly limited the participation in the drafting of the Agency to the members of the United Nations and of its specialized agencies. This does not include Red China. The drafting session extended an invitation only to the National Republic of China and not to Red China, although the Soviet Union sought to change the invitations. A motive to remove the limitations in the statute requiring adherence by future members to the United Nations principles was overwhelmingly rejected by the international conference. This motion was made primarily to permit Red China to become a member later on. The credentials of the National Republic of China were upheld on two different votes. Thus, there have been at least five separate occasions when the problem of Red China was considered. On all of them the position of the United States against the admission of Red China was maintained and without any veto. The recognition of Red China is basically a political question. Whether or not the United States recognizes Red China and whether Red China is ever admitted to the family of nations is a question which should not be resolved in the Agency but should be resolved in the United Nations. The Agency would be able to follow the actions of the United Nations, since the test for future membership is set forth in article IV (B) of the statute:

"In recommending and approving a state for membership, the Board of Governors and the General Conference shall determine that the state is able and willing to carry out the obligations of membership in the Agency, giving due consideration to its ability and willingness to act in accordance with the purposes and principles of the Charter of the United Nations."

Any veto written into the statute would not be a healthy or desirable basis for the operations of the Agency. Moreover, a veto provision would be ineffective, because Russia could give Red China atomic assistance independently of the Agency and it would be a serious mistake for us to force her to do so.

Another complaint against the Agency is that the United States will be giving 5,000 or more kilograms of uranium enriched in uranium 235 to the Agency. So far no one has indicated that this material will be donated as a gift. Indeed, the statute contemplates that the Agency will pay for the services and materials received unless there is a special agreement to the contrary. The Atomic Energy Commission has already informed the Joint Committee that it does not believe that it has any statutory authority to give materials to the Agency. If, at any time in the future, it should be decided that the United States should make a gift of materials, the Commission would seek to have that authority granted to it by Congress.

A further claim is that materials given to the Agency could be diverted and made into weapons. I do not believe that this would be the case. In the first place, the International Agency has provisions in its statute for the inspection

and control of projects to which the Agency gives assistance. These provisions are almost identical with the provisions which are written into the bilateral agreements of the United States. However, they carry one additional safeguard that the United States bilaterals do not have. These Agency projects would carry a contractual basis for action by the United Nations in the event any diversion should be found. This contractual basis is, of course, missing from the United States bilaterals.

In the second place, Agency projects are limited to those projects which will be designed to implement the development of atomic energy for peaceful uses. A nation which wanted to divert the materials from these projects would find it dangerous and costly, since they would have to devise ways to get around the rigid inspection and control provisions and to process materials which could be highly radioactive. Any nation that wanted to embark on a weapons program of its own could do so outside of the Agency. Indeed, many nations probably will start atomic-energy programs of their own. The more nations that start their programs under the International Atomic Energy Agency, the fewer will be the nations which will have atomic programs which can be turned into military uses. Let there be no mistake about this. Uranium is one of the most abundant resources in the world. The knowledge of building reactors is not limited to any one country. Other countries will be able to obtain both the materials and information on how to use atomic energy from sources other than the United States. If they desire, they can use them for the military uses of atomic energy.

We can, and should, encourage those countries which are now beginning to get into the atomic-energy program to devote themselves only to the peaceful uses.

BILATERAL PROGRAMS

Many have asked why we should join in with the Agency when we can achieve the same results through our own bilateral programs. I do not think we can achieve the same results. It was many of the small nations that first suggested that the International Agency be established through a conference. They did not want to have the Agency statute set up by the major powers and then forced on them. They wanted to have a voice in the formation of the Agency and in its operation. The wisdom of letting them have this voice today has been shown by the many ways in which the statute of the International Agency has been bettered by the amendments offered in the conference last fall. It is part of their national pride that their atomic-energy program will be drawn not from any one nation, but from all the nations of the world. There may be many nations in the world who, because of their traditionally neutral positions, may prefer to receive assistance from the Agency instead of receiving further assistance from the United States. Such nations could include Switzerland and the Scandinavian countries.

It was a small nation, Thailand, that suggested the amendment to the statute giving the Agency the authority to take over the inspection and control functions of the national program of any single nation.

IRON CURTAIN COUNTRIES

There has been some objection raised to the ability of the Agency to furnish materials to Iron Curtain countries. I do not fear this authority. The Agency is not going to start on large, grandiose plans. It can start out, however, furnishing radioisotopes for peaceful purposes. These radioisotopes could be used to help people behind the Iron Curtain control and cure diseases. Small research reactors containing amounts of materials militarily insignificant can help people behind the Iron Curtain learn about the beneficial and humanitarian uses of atomic energy. Since the International Agency was proposed as a means of winning the hearts and minds of peoples of the world, certainly there should be no disagreement that these activities of the Agency can and should be encouraged. Remember that the Iron Curtain countries requesting assistance for projects must also agree to appropriate inspection and control features. This kind of experience can be extremely valuable to the Agency and to the world in learning how the control systems operate behind the Iron Curtain. In fact, this experience of being subject to inspection and thereby creating an atmosphere for acceptance of general military disarmament with its inspection sys-

tem is one of the most persuasive arguments for the International Atomic Energy Agency.

Later on, there may be countries that will want other reactors of more advanced types. In considering those projects, as in considering any initial project, the Board of Governors of the Agency would have to consider the adequacy of the inspection and control systems which might be required, as well as the ability of the nation to comply with these features. This means that the basic responsibility would be upon the Board of Governors to make this decision. We can, and I think we should, have confidence that the Board of Governors would make any such decision in the light of all of the known facts surrounding the project.

Thus far, I have talked about the Agency in terms of meeting the arguments against it. It seems to me, however, that there is much more to be gained by talking about the future that the Agency can make for the world. Of course, it can provide a ground for the training of many scientists in many countries. Further than that, it can provide a central clearinghouse for the exchange of information. In the field of science such a clearinghouse is a great help since the thoughts of one person will frequently strike a sympathetic spark in the minds of others. The more scientists that can read and discuss the work of the leaders in other countries, the more quickly will this great potential be tapped for the good of all. In scientific fields, no one ever knows where a new and original thought will come from. Remember that the basic formula on which this field is founded came from a then-unknown examiner in the Swiss Patent Office—Albert Einstein. The more persons around the world who are able to study the problems of atomic energy, the sooner will this great energy be released for the benefit of all mankind.

INSPECTION AND CONTROL

Above and beyond all that can be achieved through the distribution of materials and information on the peaceful uses of the atom, there will be one outstanding accomplishment which can be obtained from the International Agency. This will be a period of learning about all of the problems—technical, legal, psychological—of international inspection and control. The Agency was suggested at a time when neither the United States nor Russia were able to agree on an inspection and control plan for themselves for disarmament purposes. The Agency's operations can produce that technology and that confidence in international control which will lead to complete international control of atomic energy at an appropriate time later on. Since the Soviet Union has been the country principally opposed to international inspection of atomic arms, perhaps it will learn that international inspection will not be as unpalatable as anticipated.

Many of the commercial problems which will develop in this field can run into extremely complex legal situations unless there is one international agency which can help resolve the problems. One of these is the problem of the liability of the manufacturer or supplier of materials or services to reactors built in foreign lands, which may perchance have a nuclear incident. One of the earliest tasks that the International Agency could undertake would be the calling of a convention which could draft an international treaty in which many of the difficult legal problems could be resolved to the advantage of all nations. The treaty could, indeed, give the Agency some administrative functions which the Agency cannot now undertake. This could include the administration of an indemnity fund similar to the indemnity fund in the Anderson and Price bills now being considered by the Joint Committee. The treaty could cover extensive and difficult substantive and procedural questions in the unlikely event of such a runaway. Another natural problem for the Agency to work on would be international techniques for the disposal of waste radioactive gasses and liquids in the atomic energy program.

The problem of international control to radiation exposure could also be considered. I am sure that the Agency already has such projects in mind for its operation once it is established. These will be of great advantage to the United States or any nation seeking to sell its services in the international market. But above all, the great contribution that can be made by this Agency is in the development of the technology, the law, and the public acceptance of international control. This will not be achieved suddenly but gradually. The Agency cannot achieve this benefit if it has no materials at its command.

UNITED STATES -RATIFICATION URGED

I cannot criticize those who merely want to study and understand the Agency thoroughly before the statute is considered by the Senate for ratification. I, too, have had a long period of studying the Agency. I do hope that once the study has been completed that the discussion of ratification will then proceed on the same high level of hope and faith for the whole world that has been evident in the international discussions of the Agency to date. President Eisenhower's proposal before the United Nations received worldwide acclaim. The negotiations on the statute have proceeded in the faith and hope that the Agency would come into being as soon as possible.

So far we have spent much effort and great sums of money in developing atomic weapons for waging war whenever we may be called on to defend our liberties and our shores. If the time ever comes when any nation should have to fire a nuclear weapon in warfare, it could be a world tragedy. In the words of Pope Pius XII:

"There will be no song of victory, only the inconsolable weeping of humanity, which in desolation will gaze upon the catastrophe brought on by its own folly."

Now is the time, while maintaining our armed strength, to devote our efforts as wholeheartedly to finding the ways in which to develop atomic energy for the peaceful benefits of all mankind. The only real way in which this can be done is under an international agency devoted to the resolution of international atomic energy problems through international law.

As we enter into the age of the international development of atomic energy, we must learn to have faith in the ideals and judgments of the free nations of the world. But we must remember that the free world—and indeed the whole world—looks to the United States for leadership in this great dilemma. To date the United States has exercised that leadership wisely and with restraint in the negotiations leading to the signing of the statute of the International Atomic Energy Agency. As long as the United States continues to apply its ideals to this field in the same strong but reserved manner that it has, the United States will continue to supply the leadership of a foundering world. When this country shall begin to withdraw again unto itself, it will be only a nullity among the nations of the world.

I fervently pray that the Senate, after giving the statute thorough consideration, will ratify the statute by an overwhelming vote. This will tell the other nations that we have faith in them and their peoples.

This will also affirm the pledge given to the world by President Eisenhower to the General Assembly on December 8, 1953:

"* * * the United States pledges before you—and therefore before the world—its determination to help solve the fearful atomic dilemma—to devote its entire heart and mind to find the way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life."

Nothing would be more damaging to our position in the family of nations than failure to ratify at this late hour. Our record in the atomic era has been praiseworthy to date—let us not deliberately or blindly mar that record and throw doubt, dismay, and despair into the hearts of the people of the world. The world looks to us to lead the way. We cannot now disclaim the progeny of our idealism.

STATUTE ON THE INTERNATIONAL ATOMIC ENERGY AGENCY

MONDAY, MAY 20, 1957

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, D. C.

The committee met, pursuant to call, at 10:10 a. m., in room 457, Senate Office Building, Senator Theodore Francis Green (chairman) presiding.

Present: From the Senate Foreign Relations Committee, Senators Green, Sparkman, Mansfield, Smith of New Jersey, and Hickenlooper. From the Joint Committee on Atomic Energy, Senators Anderson, Pastore, Hickenlooper, Bricker, and Dworshak. (Senator Hickenlooper is on both committees.)

The CHAIRMAN. The meeting will please come to order.

Senate members of the Joint Committee on Atomic Energy are again sitting this morning with the Committee on Foreign Relations to consider the statute of the International Atomic Energy Agency. During these days of hearings last week we received testimony from the Secretary of State, the Chairman of the Atomic Energy Commission, and Ambassador Wadsworth. Several members of the committee have expressed the desire to have Commissioner Thomas E. Murray of the Atomic Energy Commission, appear before us to get his views. Mr. Murray is here this morning, and will be our first witness.

Following his statement we will receive the testimony of a number of individuals who have asked to be heard on this pending statute. Because of the large number of individuals to be heard, it will be necessary to ask that each witness limit his or her oral statement not to exceed 10 minutes. Unfortunately, several requests were received too late to be included on this schedule today. I would suggest, however, that if individuals who may not be able to be heard today wish to submit statements for inclusion in the record, they may. We will now hear from Commissioner Murray.

STATEMENT OF THOMAS E. MURRAY, COMMISSIONER, UNITED STATES ATOMIC ENERGY COMMISSION

Mr. MURRAY. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I wish to thank you for the privilege of expressing my views here today. Now with your permission, Mr. Chairman, I will read a prepared statement.

Mr. Dulles, the Secretary of State, speaking from the standpoint of foreign affairs, has presented to your committee the case for American participation in the International Atomic Energy Agency. His argu-

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ments seem to me to be persuasive. I wish to ally myself with them. I, too, am convinced that by ratifying this treaty, in whose conception and negotiation the United States took the leading role, our country, in Mr. Dulles' words, will prove itself—

> faithful to its great tradition of resourcefully identifying its own self-interest with the interest and welfare of all mankind.

Mr. Strauss, Chairman of the Atomic Energy Commission, speaking from another point of view, has also presented a lengthy argument in support of the Agency. I agree with his argument, both in general and in its details. In my judgment, he has convincingly disposed of the major arguments advanced against American participation in the Agency. I find his positive arguments no less convincing.

I should also like to congratulate Mr. Ambassador Wadsworth and his staff for their patient, devoted, and highly intelligent work. I feel that they have been guided at every turn by the great vision which must guide the American people and the officials of their Government in this decisive moment of history. I mean the vision of a strong and confident America using its resources of power and its sense of moral purpose to lead the nations of the world toward the common goal of public prosperity in a new and peaceful international order.

NEED FOR INTERNATIONAL ORDER

There is only one point upon which I wish briefly to dwell. It is, I think, an altogether central point. It concerns the notion I have just mentioned, international order.

In no field does the need for international order exist more imperatively than in the field of nuclear energy. In the concept of order I include a whole set of notions—regulation, control, supervision, commonly accepted standards of health and safety, and above all the institution of free and orderly procedures of cooperation among nations. You have heard statements about the danger of our gradually drifting into a state of atomic anarchy. This is a good phrase in which to describe the state in which we already find ourselves. Surely this is true in the field of nuclear weapons. Each of the nations engaged in their development and production is acting as a law unto itself.

There are no common norms of standards binding on all; there are no common agreements accepted by all. The result is international lawlessness or anarchy which shows itself chiefly in the ungoverned—and for the moment seemingly ungovernable—race for nuclear armaments.

This international situation is not simply the road to anarchy. It is itself anarchy. Unless and until this anarchy is resolved into some decent measure of order, neither America nor the world at large could enjoy even that basic security that consists in the assurance of continued national existence.

From this premise of fact I shall go on to state my thesis. I believe that the International Atomic Energy Agency offers the best hope that has hitherto appeared of beginning to reduce or limit the anarchy currently prevailing in the weapons field. In itself, this Agency will be a long step forward toward genuine international order, in the sense explained, in the field of peaceful uses of atomic energy. But, if we

are resolute and imaginative in taking this step, we shall likewise be taking a step forward toward the introduction of a measure of international order in the field of military uses of atomic energy.

To some this may seem to be a bold thesis. So it is. But I believe that the critical conditions of our times call for a certain prudent boldness. I am not convinced by the arguments for caution made by those who fear that the International Agency will increase the threat of nuclear weapons. The fact is that this threat could hardly be made greater than it is at the moment. The further fact is that the safeguards provided in the treaty are as adequate as they can be made in the nuclear age, in which, as I have often insisted, total safety is an idle dream. But even apart from these facts, there is the more fundamental consideration that the nuclear menace today does not directly derive from the nuclear weapons themselves. It derives from the international anarchy represented by the ungoverned armaments race, as this anarchy is superimposed on other more basic anarchies prevailing on the international scene.

The United States is making a direct attack on the anarchy in the weapons field by its disarmament negotiations. This effort is necessary, but it is not enough. An effort has to be made on the more fundamental level to establish the principle of international order in the development and use of atomic energy. Here, as I see it, lies the essential promise of the International Agency.

It represents the principle of orderly cooperation among 80 nations for the common good of all. But order, like freedom, is ultimately indivisible.

PRINCIPLE OF ORDER AND FIELD OF ATOM FOR WAR

There are therefore firm grounds for hope that the principle of order, once established in the field of atoms for peace, will gradually make its way also into the presently lawless field of atoms for war. This fortunate development will come about the more readily, I believe, as the nations of the world begin to experience the benefits that accrue to each of them from the establishment of an international atomic power economy, that is characterized by a health competitiveness and by a still more healthy cooperation. Whereas if the spirit of anarchy presently visible in the weapons field is allowed to invade the newly opening field of peaceful uses, the results can only be disastrous from every point of view. International security will be more precarious than ever. And the people of the world will be denied the enjoyment of that new measure of well-being which nuclear science and technology can put at their disposal. The nuclear age will continue to be the age of peril; it will not become the age of opportunity.

BILATERAL AGREEMENTS AND FRAMEWORK OF INTERNATIONAL COOPERATION

I should insert a word here about our policy of concluding bilateral agreements with other nations. These agreements are of no small value in making progress toward the goal of which I have been speaking—the establishment of international order in the nuclear field. But of itself this policy will not bring us to the desired goal.

It needs to be set within a larger framework of international cooperation between the United States and the peoples of the world—a cooperation whose procedures are established by international statutes commonly agreed upon. This larger framework of policy will be supplied by the International Agency.

The United States by itself cannot hope to impose order upon the world, whether in the nuclear field or in any other area. The kind of world order to whose establishment America ought to devote its resources and energies can only be created by a free-spirited cooperation, whose ultimate motive is the common good of the international community, and whose regulative norms are accepted by the common consent of this community. This is the kind of cooperation for which the International Agency stands. It is the kind of cooperation for which America itself stands.

RELATION BETWEEN MILITARY AND PEACEFUL USES OF NUCLEAR ENERGY

In conclusion, I should like to call to your attention the fact that I have consistently maintained that there is an inherent and inseparable relation between the military uses of nuclear energy and its peaceful uses. For instance, on February 23, 1956, testifying before the Joint Congressional Committee on Atomic Energy, I said in part:

> Our programs in both these fields (nuclear weapons and industrial nuclear power) are directed to the same end—the furtherance of justice and peace. The most pressing problem that confronts us today is that of balancing these two programs in such a way that each of them individually, and both of them together, will serve this one common purpose.
>
> Our weapons program serves the cause of peace by equipping us to defend the order of justice. In the long run, a vigorous program for peaceful uses of atomic energy will make the more important and lasting contribution to the cause of a just peace.
>
> This program will help create the economic conditions throughout the world which are a necessary support of a just and peaceful world order. Moreover, as the benefits of atomic power are more and more widely shared, we may hope that the world will be penetrated by the conviction that God in His almighty power and goodness has given us the secret of atomic energy for purposes of peace and human well-being, and not for the purpose of war and destruction.

I believe that United States participation in the International Agency will assist in realizing this hope.

The CHAIRMAN. I thank you. Perhaps you will now answer questions. Mr. Sparkman.

Senator SPARKMAN. I have no questions.

The CHAIRMAN. Mr. Anderson.

THREAT OF NUCLEAR WEAPONS

Senator ANDERSON. On page 4, Mr. Murray, you say:

> I am not convinced by the arguments for caution made by those who fear that the International Agency will increase the threat of nuclear weapons. The fact is that this threat could hardly be made greater than it is at the moment.

Do you consider that the fact that Britain has now shown it has a capacity for megaton weapons, that besides this country and Russia, other countries will be coming along with a similar capacity?

Mr. MURRAY. I have no doubt about it. That is what I was directing attention to in this sentence. We have 80 or 81 nations in the world to think about.

Senator ANDERSON. A great many people seem to take the theory that a megaton bomb is sort of a small weapon since we know how to make megaton bombs. Is the megaton bomb a little larger than the bombs we have used in World War II at Nagasaki, Hiroshima?

Mr. MURRAY. I think, Senator Anderson, you know this situation maybe much better than I do, and of course the figure I assume you are looking for is a figure like 60 million times greater than the World War II blockbuster.

Senator ANDERSON. I don't mean 60 million times greater but many, many times greater than the Hiroshima type. As to the blockbuster, I quite agree with that.

Mr. MURRAY. Yes.

Senator ANDERSON. I was afraid the fact that we thought we had got off a tremendous weapon when it was one that might have been 20,000 kilotons, here is one that is several hundred times as great as that, and it seems to be shrugged off as unimportant.

Mr. MURRAY. I am sure I don't shrug it off, and I don't think you do, Senator Anderson.

Senator ANDERSON. You say the safeguards provided in the treaty are as adequate as they can be made in an age where total safety is an idle dream. They are relatively safe perhaps, but when any nation achieves the capacity to make a heavy bomb, it can do so and cause a great deal of trouble. Isn't the problem to make a good fair-sized bomb, and aren't a good many countries now where they might do it with all that has been published about it?

Mr. MURRAY. I don't know whether I am in a position to answer that, but I do think that the scientists generally around the world outside of our atomic energy program and that of the U. S. S. R., and the United Kingdom should be pretty well in a position to make an atomic bomb.

Senator ANDERSON. Yes; because there has been a great deal published about it. There was some spying done, and there has been a great deal of publication, and the general principles of nuclear weapons are pretty well understood; are they not?

Mr. MURRAY. I think so.

Senator ANDERSON. So if a nation starts to make reactors, it probably has something out of which it can make weapons if it wishes to.

You spoke of good healthy competition. I noticed a news story yesterday that said the British reactor was given a close edge, indicating that we were in a fairly substantial competition with the British for the Japanese business at the present time, would that not be so?

Mr. MURRAY. We have heard reports to that effect.

Senator ANDERSON. And production costs for labor in Britain give Britain a very substantial edge perhaps in that situation with Japan right now.

Mr. MURRAY. Yes.

Senator ANDERSON. An enriched uranium plant is a pretty expensive one to operate; is it not?

Mr. MURRAY. Yes.

Senator ANDERSON. The capital cost would be tremendous.

Mr. MURRAY. That's right.

Senator ANDERSON. So if we get into it, it is pretty heavy competition.

Mr. MURRAY. That's right.

FAILURE OF AEC CHAIRMAN TO CONSULT COMMISSIONER MURRAY

Senator ANDERSON. Mr. Murray, a personal question, how do you happen to be testifying here today? Were you part of the preparation of the Commission's case that the chairman presented a few days ago? I saw Commissioner Libby and Commissioner Vance and the Chairman with the staff around him. Were you part of the preparation of that testimony?

Mr. MURRAY. I was not; no.

Senator ANDERSON. Is it customary for the agency to prepare its testimony on a matter of this nature by only the spokesman for the Commission?

Mr. MURRAY. I would rather answer that in more general terms.

Senator ANDERSON. I will put it this way. I introduced a bill one time in order to compel the Commission to let you be fully informed of what was going on in the Commission. Are we going to have to have to introduce that bill to see that you are fully informed as to what they are going to testify about?

Mr. MURRAY. I don't think so, Senator Anderson. In this situation I tried several times before the Chairman testified to try to find out what kind of a statement was going to be made, what general approach was going to be on the subject. I was in the dark up to the time I came here.

Senator ANDERSON. You did not know what the Chairman's testimony was going to be?

Mr. MURRAY. I did not.

Senator ANDERSON. May I ask, Do you happen to know if the other Commissioners knew, or are we going to have to call in each Commissioner to find out what his attiude is?

Mr. MURRAY. I understand from the General Manager that the other Commissioners did participate in the discussion that went into preparing the Chairman's statement.

Senator ANDERSON. The iron curtain just went as far as your office.

Mr. MURRAY. Well, I think that is pretty strong to put it just that way.

Senator ANDERSON. Well, that is why we introduced a bill before, you know.

Mr. MURRAY. I know. You mentioned it. I felt I was entirely left out of this situation. I did not have a chance to prepare it, and I had hoped that if I had been in at the conferences, I might have been able to sell some of these words or some of these expressions that I have expressed here today to the Commission, to perhaps reinforce their case.

Whether it would have reinforced it or not, I don't know. That is up to this committee to judge, but I did think I should emphasize the weapons part of this statement, Senator Anderson.

Senator ANDERSON. In the presentation of the Commission's story, I had the feeling that you were not familiar with what was coming.

ENDORSEMENT OF INTERNATIONAL ATOMIC ENERGY AGENCY

Mr. MURRAY. I knew that the Commission was going to endorse this Agency.

Senator ANDERSON. You endorse it, too?

Mr. MURRAY. I endorse it, too, of course.

Senator ANDERSON. Do you feel there need to be any reservations to it?

Mr. MURRAY. None whatsoever.

Senator ANDERSON. None whatsoever?

Mr. MURRAY. No, sir.

Senator ANDERSON. You are satisfied with it as it stands?

Mr. MURRAY. I am.

URANIUM TO BE SUPPLIED AGENCY

Senator ANDERSON. Are you satisfied with the granting of whatever it may be, these 5,000 kilograms of U–235? I understood, when we were talking about it that day, it was put on the basis of 20 percent. Am I not now correct in understanding that that is on the basis of 100 percent uranium content?

Mr. MURRAY. Oh, no. I think the Chairman very clearly pointed out the fact that we would supply this uranium up to a concentration of 20 percent.

Senator ANDERSON. But, when you calculate the 5,000 kilograms, you are calculating it on a 100-percent basis.

Mr. MURRAY. That is 100 percent U–235.

Senator ANDERSON. So, if they supply 2 percent, it would be 50 times 5,000 kilograms, or 250,000 kilograms of 2-percent enrichment.

Mr. MURRAY. That is correct of the 238 with its content of U–235.

Senator ANDERSON. You are sure that that is what it is? I think I am sure now.

Mr. MURRAY. I am sure of that; yes, sir, as sure as I can be.

Senator ANDERSON. I had the impression at the discussion the other day that I might be wrong that the 5,000 kilograms were of 20-percent strength, but I undestand it is on a 100-percent strength.

Mr. MURRAY. That is correct.

Senator ANDERSON. No other questions.

The CHAIRMAN. Mr. Smith of New Jersey.

AMERICAN AND BRITISH POWER REACTORS CONTRASTED

Senator SMITH. I have only two questions, Mr. Murray, that I would like to ask you. One refers to the questions that have been asked of you a minute ago. In yesterday's New York Times, there was an article describing American and British power reactors, indicating that the American plant is less economical and uses slightly enriched material whereas the British plant uses natural uranium. Is not this an example, perhaps, of a situation where exchange and pooling of information and technical data through an international agency could help in the development of an efficient, lower cost product beneficial to all countries?

Mr. MURRAY. I am not familiar with this report you refer to, in the New York Times. The question of the efficiency of reactors is a relative situation. We just don't know the economics of the so-called gas-cooled reactor, the Calder Hall type reactor. Only time will tell us and prove out the statement to the effect that one reactor or one approach is better than another.

Senator SMITH. Do you think the United States should go along with different lines and try something else; is that the idea?

Mr. MURRAY. Well, yes, but I must tell you that I am endorsing a proposition that we ourselves should go along on this gas-cooled, Calder Hall type, and add our technology, American technology and techniques and ability to the Calder Hall present design. I think we would make great headway in that particular field. That was one of the situations.

Senator SMITH. That is what the British operation is now.

Mr. MURRAY. That is right; yes, sir.

Senator SMITH. It is all a mystery to a mere layman like myself, but I happened to read this article, and I wondered whether it meant that, by getting together, we might find it more economical.

Mr. MURRAY. I think the competition is very good, excellent; yes.

BENEFICIAL USES OF ATOMIC ENERGY

Senator SMITH. Could you tell me, just for the record, of the peaceful uses of the atom that can benefit all people? Of course, we know of these power reactors, but what is the general feeling?

Mr. MURRAY. Well, the general feeling, the medical field with radioactive isotopes, isotopes for increasing and improving production in industry, isotopes for increasing agriculture, improving the type of livestock and everything else.

It is unimaginable, in a way, how far this atomic energy and its uses of isotopes will go. I don't know of any field almost, except, to be a little facetious, in the political field, where this business won't go, and for me to sit here and try to conjecture, I can give you a general idea on how I feel about it.

But as the chairman the other day stated, I think, to this committee, one figure that we have come up with recently is that we are saving industry some $500 million in the use of isotopes for the control of their production. That is a figure that we hope may be multiplied many, many times in the next few years as the use of isotopes becomes more generally known and the techniques are generally available to the public.

SAFEGUARDS AGAINST MISUSE OF POOLED RESOURCES

Senator SMITH. Are you satisfied, from your study of this convention, that adequate safeguards exist there against the misuse of these pooled uranium resources against any possible military purpose that might be made of them?

Mr. MURRAY. As I have said, Senator, I think here we have included all the safeguards that we know about that are feasible. To tell you, to assure you that plutonium made from reactors that have been fueled by our 5,000 kilograms, that it will not eventually by some way and somehow get into weapons, I don't believe that anyone could give you that assurance, but we have taken all the prudent safeguards that we can think of, and I think they are included here in this treaty. I think we have gone as far in that direction as we possibly can.

THE FUTURE THREAT

Senator SMITH. Do you think we are justified in going into this pooling for the distribution of this material with other countries of the world?

Mr. MURRAY. Oh, I think so. The other benefits that you are going to get from this Agency may not be all the benefits I indicate here, but it will be a great step in the right direction.

What other steps do we intend to take? What other steps can we take? It is not a question necessarily in my mind of controlling Russian production and Russian technology. They are in the business. They have got hydrogen bombs. They have a hydrogen stockpile. England will eventually be in the same position.

It is the 81 other nations of the world that will eventually get this technology and be in the position to do this thing, but the threat is: How are you going to control those 80 other nations? That is what this International Agency points toward. As I see it, it is about the only hope, the only method that we can see on the horizon for getting hold of this thing.

Senator SMITH. You feel it inevitable that these countries will obtain some of this material, whether we go into it or not, and you think an agency can effect an overall control of this thing?

Mr. MURRAY. I do, Senator.

The CHAIRMAN. Mr. Pastore.

Senator PASTORE. Mr. Murray, first of all I congratulate you for a well thought out and very eloquently expressed statement upon this matter of the International Agency.

Mr. MURRAY. Thank you, Senator Pastore.

SAFEGUARD PROVISIONS OF STATUTE

Senator PASTORE. I liked the places that you developed about international order. Let me ask you this question. Are you reasonably certain in your own mind that the safeguard provisions of the statute are the best that can be achieved as of this moment?

Mr. MURRAY. I am, yes.

Senator PASTORE. Do you think that procedures have been developed at the expense that if a certain amount of fissionable material is given to any nation that we can follow the process of that development and we can also follow the byproduct with reasonable certainty that it can't be used for military purposes?

Mr. MURRAY. I think reasonably we can. There will be a percentage. Some people say you could account for it up to 1 percent or up to 5 percent, you would be able to follow it right there from one stage to the other.

Senator PASTORE. But do you feel that accounting procedures can be worked out and be put into effect whereby we can reasonably follow this material to the extent that no nation without the entire world being appraised of the fact can use this for military purposes without other nations knowing it?

Mr. MURRAY. I can't say yes or no to that. Up to a certain point, yes. Up to a certain percentage——

Senator PASTORE. Up to a reasonable point?

Mr. MURRAY. Up to a reasonable point, and I would say 1 or 5 percent, something of that sort.

Senator PASTORE. Do you know of any other language that could have been perfected in order to give us better safeguards than we have in the present article?

Mr. MURRAY. I do not, Senator Pastore.

COMMUNIST CHINA PROBLEM

Senator PASTORE. Knowing of your intense and inherent feeling on this Red China question, what have you to say to the argument that this is going to be the back door for Red China's participation? Do you have any apprehension of that?

Mr. MURRAY. Not at all. On the question of whether Red China comes into the nuclear field, the power field, the weapon field, the U. S. S. R. can put them in business tomorrow if it cares to. There is no way to prevent that that I know of, now that we know of the technology that has been acquired by the U. S. S. R.

Senator PASTORE. Can you imagine of an international disarmament agreement affecting nuclear weapons that would be effective without the participation of Red China, not that I am suggesting that she should come into this, but if ultimately we are going to develop a disarmament agreement of an international scale for the proper control of nuclear weapons, can you imagine that we would ever have one that would give safeguard and security to the world without the participation of all the nations of the world?

Mr. MURRAY. I can't, as I say, see how you could prevent Red China from getting the technology necessary to produce atomic weapons, and have a stockpile of atom weapons.

Senator PASTORE. As a matter of fact, there isn't a thing that she could get from this International Agency that she couldn't go to Moscow tomorrow for and get just as much.

Mr. MURRAY. I believe that is so.

Senator PASTORE. You believe that to be so?

Mr. MURRAY. I do.

RELATION OF PEACEFUL AND MILITARY USES OF ATOMIC ENERGY

Senator PASTORE. Now on this question of bilaterals and the International Agency, you do see a distinction between the two on the development of this international law that you are talking about.

Mr. MURRAY. I do, Senator, yes.

Senator PASTORE. And furthermore, would you say that the line of demarcation between the uses of nuclear and thermonuclear power for peaceful uses as against weapons uses is merely fictional insofar as inspection and control are concerned?

Mr. MURRAY. In a certain sense, yes.

Senator PASTORE. In other words, if we can ever hope to achieve on an international scale the properly inspected controls, the uses of this fissionable material for peaceful uses, we will have found the answer for weapons uses.

Mr. MURRAY. I think so.

Senator PASTORE. Do you believe that?

Mr. MURRAY. I do, yes.

Senator PASTORE. That is all, Mr. Chairman.

Mr. CHAIRMAN. Thank you. Mr. Hickenlooper.

Senator HICKENLOOPER. Mr. Murray, among the things in your statement in which I am interested is the question just raised by Senator Pastore on the matter of peaceful uses and military uses of atomic energy.

I take it from your statement that you believe not that the statute will give any guaranty against the military uses of atomic energy, but that it will be a step which hopefully might lead to further controls and the diminution of the military uses; that is, it is a hope rather than anything that is contained in this statute as guaranty.

Mr. MURRAY. I think it is a little more than a hope, Senator Hickenlooper. I think when 81 nations get together and put the time in that they have put in on this Agency and have come together as a group of this kind to control the peaceful uses of atomic energy and agree that material will not be put into weapons, I would go further than calling that a hope.

BENEFITS FOR COUNTRIES NOT NOW COMPETENT TO DEVELOP RESEARCH TECHNOLOGY

Senator HICKENLOOPER. At least it seems to me that it is fair to assume that these 81 nations who have participated in the program as beneficiaries or recipients of this material are nations that do not now have the competence to develop it on their own, financially or technically or otherwise——

Mr. MURRAY. I think that goes for the majority of them, not for all of them.

Senator HICKENLOOPER. What particular advantage would come to a nation that has competence today to develop research technique and technology in going into the international statute arrangement?

Mr. MURRAY. I think perhaps the same thing that would influence us to go into it. We don't need any more technology, we don't need any more material, and still we feel, that is the administration feels, that this is a move in the right direction and that you move toward control.

Senator HICKENLOOPER. But we will not be asking for materials.

Mr. MURRAY. No.

Senator HICKENLOOPER. Under this.

Mr. MURRAY. That is correct.

Senator HICKENLOOPER. We will not be asking, at least at this point, for technical advice or technical assistance from the Agency. There may come a time when the Agency has technical advice and assistance that will be helpful to us.

Mr. MURRAY. Yes.

Senator HICKENLOOPER. But at this stage I think it is fair to say no.

Mr. MURRAY. I think you are right.

Senator HICKENLOOPER. Therefore, the burden of my question is this: Nations who will come into this Agency to receive assistance from it will, in the main, be nations that do not have the competence themselves to develop this science at this moment.

Mr. MURRAY. I agree with that.

Senator HICKENLOOPER. As these nations, if they have the latent or potential ability to develop the science themselves with aid, do so,

a number of them probably will gain some proficiency in the atomic science.

Mr. MURRAY. No doubt about it.

Senator HICKENLOOPER. As they gain proficiency in the peacetime uses of the atomic sciences, don't they go a long step down the road toward gaining knowledge and potential proficiency in the fabrication of weapons?

Mr. MURRAY. There is no question in my mind about that, yes.

Senator HICKENLOOPER. If they do, then human nature being what it is, and what it has been over the course of history, then the time comes when a nation says "I will be responsible for my own defense, and I will cease my association with this Agency, with what I have learned, and will start making atomic weapons for myself because I may want to drop one on my neighbor over here someday if we have some difficulties."

Mr. MURRAY. There is no question, that is a possibility, but I would like to add to that that there is no way that you or I could prevent them from getting themselves in that same position.

Senator HICKENLOOPER. Perhaps we can't prevent them ultimately. We might be able to slow them down a little bit.

Mr. MURRAY. There is a question there. It depends on how fast or how anxious the U. S. S. R. is to put these various people in a position to make weapons.

Senator HICKENLOOPER. I am not speaking necessarily of the satellite countries at the moment. I certainly agree with you that any time the U. S. S. R. wants to put its satellites in the atomic energy business, it can do it, if it has the finances, the spare scientists, materials, and so on. There is no question about that.

This Agency would not affect that one way or the other, and I am not greatly concerned about that phase of this matter myself, but I am concerned as to whether or not we may, by developing a new competence within some 81 nations or a portion of them, see the day when those nations may say, with their nationalistic tendencies: "We have got all we can out of the Agency now. We have learned this competence. We don't like to be under the thumb of some other nation that can make atomic bombs. We will make them for ourselves. We will just get out of the Agency now and we will have access to uranium. We will buy it on the world market or get it here, there, or the other place. We will build our own plant and build 2 or 3 bombs, so if our neighbor gets a little out of line we can maybe do a little damage."

Mr. MURRAY. I think that is very reasonable to assume that something like that may happen, you see, but I would call your attention to the fact that as these various nations that you refer to become more familiar with the technology and the advantages and the great benefits that are going to be derived from atomic energy, it is my hope at least that they would not come under the Agency or outside of the Agency, and would take it upon themselves to use atomic weapons.

Senator HICKENLOOPER. Perhaps so, but may I just suggest at that point perhaps that when the Wright brothers flew the first airplane at Kitty Hawk, they did not envision skies full of airplanes dealing death to countries here, there, and every place.

Mr. MURRAY. That's right.

Senator HICKENLOOPER. And like many other inventions or progressive devices or materials that started out as a humanitarian device

with great potentials for good, they have on occasions found potentials for evil, too. I am only trying to test this theory a little bit—but are we perchance speeding the day when many nations can have the competence to make atomic weapons, because of the educational and technical training which they will get through this international agency?

Mr. MURRAY. We may be, but I would just like to go on to this point. The day when any material amount of say plutonium will be produced isn't tomorrow comes the day after this treaty is signed. It is 5 years from today.

And then the amount of bombs, the amount of material and the number of bombs that will come out of reactors, the number of reactors that will be operating 5 years from now, will be very insignificant.

I feel confident that in this 5-year period, that things are going to happen, more technology is going to become available, and there is no way that you can see that you can prevent this from happening.

Now what I was going to say a little while ago, we may find ourselves in the position, if we don't do something like this, that we will have to go along with, say the Japanese, asking for atomic bombs and some of our people indicating: "Don't you test bombs, don't you make bombs. Perhaps we will supply you with bombs."

That is the kind of a situation that you may be up against. They are all friendly nations, you see.

Senator HICKENLOOPER. Are we possibly in a situation where a father says, "My son is going to grow up and eventually drive an automobile and have one of his own, so when he is 10 years old I had better give him one now and start him out."

Mr. MURRAY. I know, Senator Hickenlooper, I need not tell you that is a little different from an automobile and the dangers inherent in the question of driving automobiles. This is world survival. This is a question of trying to get hold of some control on this thing that is running wild at the minute.

Senator HICKENLOOPER. I am not necessarily disagreeing with you, Mr. Murray, but I am also trying to raise the problem of are we raising a potential Frankenstein monster here which can stalk the earth at an earlier date than it otherwise would, and perhaps rise up to plague us.

Mr. MURRAY. Could I just read something here that I read in yesterday's paper, with due respect to Senator Mansfield. He said in an article—and you are talking about this monster that we are creating——

Senator HICKENLOOPER. Now, I don't know that we are creating a monster.

Mr. MURRAY. I think it is here.

Senator HICKENLOOPER. I don't know that we are. I am only canvassing the subject a little bit here, because various questions are raised all the time on this matter.

I think we have got to lay it out and frankly find out what the situation is and what the best judgment is on where we are going and what is the potential of this program.

Mr. MURRAY. Senator Mansfield, with your permission, you said yesterday, reminded us that only yesterday were we deeply involved in a highly volatile world, and he went on to refer to the possibility

that there will be no world left in which to play our part. I think that sums the situation up as far as I am concerned very, very well.

Senator HICKENLOOPER. Of course, there could be no dispute that we are in an era of fantastic potential, and we undoubtedly will continue in that era for a long time. I stop in midair. We apparently are under the 10-minute rule. My 10 minutes have expired, and I will cease questioning.

Mr. MURRAY. Thank you, Senator Hickenlooper.

The CHAIRMAN. Senator Mansfield.

GENESIS OF STATUTE

Senator MANSFIELD. Mr. Murray, I too want to commend you for the fine statement you have made this morning. I don't know too much about the subject. Perhaps no one knows too much about it, but I am trying to find out just what is the genesis for this treaty and what it expects to accomplish.

Am I correct in stating that President Eisenhower in an address to the General Assembly in the United Nations on December 8, 1953, laid down the genesis of the proposal before us in these words:

> The United States pledges before you and, therefore, before the world, its determination to help solve the fearful atomic dilemma, devoting its entire heart and mind to find a way by which the miraculous inventiveness of man shall not be dedicated to his death, but consecrated to his life.

Is this statement on the part of the President of the United States the genesis of the proposal before us today?

Mr. MURRAY. I think so. I think we would all like to join in that statement wholeheartedly.

Senator MANSFIELD. Now, Mr. Murray, on page 6, you made the statement with which I am in thorough agreement. I am quoting from your paper (see p. 176):

> The United States by itself cannot hope to impose order upon the world, whether in the nuclear field or in any other area.

I think you said a good deal in that one sentence because I am afraid that some of our people think that we have the power of life and death as far as we are concerned, and on this basis, we tend to shy away from the recognition that there are other countries in the world fully sovereign, fully free, fully independent, and that if we are going to live, we will have to consider them and their peoples as well as our own country and our own people.

Mr. MURRAY. Yes.

FAILURE OF AEC CHAIRMAN TO CONSULT COMMISSIONER MURRAY

Senator MANSFIELD. I was a little disturbed at what the distinguished Senator from New Mexico had to say a few moments ago. You are a member of the Atomic Energy Commission, Mr. Murray, aren't you?

Mr. MURRAY. I am.

Senator MANSFIELD. How long have you been a member?

Mr. MURRAY. Seven years; over 7 years.

Senator MANSFIELD. How long has Admiral Strauss been a member?

Mr. MURRAY. I think he has been a member at least that long or longer. He has had two terms of office.

He was on the Commission originally appointed by President Truman in 1946, I think it was, and he resigned, I think it was, in 1950. Then he came back on the Commission in 1953.

Senator MANSFIELD. Approximately the same number of years as you?

Mr. MURRAY. I think so; yes.

Senator MANSFIELD. And how long has Dr. Libby been a member?

Mr. MURRAY. Since 1954.

Senator MANSFIELD. And how long has Mr. Vance been a member?

Mr. MURRAY. About a year, a little over a year.

Senator MANSFIELD. The vacancy caused by the passing of Dr. Von Neumann has not been filled as yet?

Mr. MURRAY. That's right.

Senator MANSFIELD. You were not by any chance being frozen out in the consideration of the Chairman of the Atomic Energy Commission's statement before this committee?

Mr. MURRAY. I was not consulted on it. That very day a meeting was held which the other Commissioners attended, the General Manager attended, the Assistant General Manager attended, and 10 or 12 other members of our staff attended, to talk over this statement that was to be made, and prepare questions and answers.

Senator MANSFIELD. But of all the so-called hierarchy, if I may use that term, you were the one who was not consulted.

Mr. MURRAY. I was not invited to that meeting.

Senator MANSFIELD. Mr. Murray, did the other members of the Commission, the General Manager, and the other people you referred to, have any indication as to what your position was on this particular proposal?

Mr. MURRAY. Well, I think they knew that I was in accord, in agreement with this proposal. I have expressed myself at meetings of the Commission, at prior meetings of the Commission.

Senator MANSFIELD. Why did they not invite you as a full-fledged member of that Commission to participate in the drawing up of the statement which the Chairman was to present in behalf of all the Commissioners?

Mr. MURRAY. I can't answer that question.

STRONTIUM 90 HAZARDS

Senator MANSFIELD. Mr. Murray, you mentioned atomic energy. As I mentioned earlier, I don't know too much about nuclear and thermonuclear matters, but I am certainly going to try and find out, and I have been trying from a layman's point of view to get some understanding over the years.

There has been a good deal of talk lately about such things as radiation, strontium 90, and the like, and in response to a question from Senator Hickenlooper, you used the words "world survival." What is the story on strontium 90 and radiation, insofar as it could be applied to the discussion before us?

Mr. MURRAY. I can't answer that question in actual and definite terms, but I can give you a general idea of it.

I am not a scientist as you, I think, are well aware. Strontium 90 is a byproduct of atomic fission. It is a material that is a bone seeker. It is a material such as calcium.

Once strontium 90 gets in the ground it follows the generally same path that calcium does, getting into the system and seeking the bones. Generally speaking, we have acknowledged that strontium 90 from some 30 megatons of fission energy has been placed in the stratosphere as a result of weapons tests. As a result of that, there has been deposited in children's bones what we call one sunshine unit, just for another expression. It is a unit used to denote levels of strontium 90.

If enough strontium 90 is absorbed in the skeleton, it will produce cancer. There are figures that I have used many times, that 10 units of strontium 90 brings you perhaps to the threshold, to a danger point, but one well below the levels believed necessary to cause bone tumors. Children, by the way, parenthetically, absorb strontium 90 much more rapidly than grownups, the same way that they absorb calcium much more rapidly than grownups.

And so we have projected the concentrations that have come from strontium 90 from present tests—as I say, we have announced 30 megatons placed in the stratosphere.

Now, the situation that confronts you and the whole world and all of us is how much of this strontium 90 can you deposit around the world and not get yourself into some very serious trouble. I tried to put figures into this situation, referring back to the 30 megatons placed in the stratosphere. I said publicly let's take a look at 3,500 megatons, what does that do? That is a figure that is taken more or less out of the air but it is taken in order to point up a situation.

So if 3,500 megatons of fission energy were exploded as ground bursts by the U. S. S. R. and ourselves on one another, in proportion as the respective areas of the two countries, the figures as we calculate today would bring the level of strontium 90 in human bones in the U. S. S. R. and the United States of the order of 50 times the maximum considered acceptable for the general population. And throughout the world, it would bring about stronium levels up to about from 2 to 6 times the permissible from that amount of fission energy released.

Now, I point out that 3,500 megatons, with this in view, with this in mind, to try to point up the hazard. That is not very much when you think of 30 megatons in tests, in stockpile in this country and in stockpile abroad. This figure of 3,500 megatons maybe has to be changed as the scientists get into the situation, get it more accurate, it may have to be reduced, it may have to be raised.

But until you put a figure of some kind into this conception, you do not get a clear picture of the hazard that is confronting the world today.

If, as indicated here today, you have got 80 nations to worry about, I wonder how we are going to dole out the amount of fission energy that each one is going to be allowed to explode before we come to some limit. There is no back tracking.

Senator MANSFIELD. Mr. Murray, the subject of radiation from strontium 90 is a clear and present danger, more so as far as our children are concerned.

Mr. MURRAY. That is correct.

NUCLEAR DEVELOPMENT

Senator MANSFIELD. Now, Mr. Murray, can you keep back nuclear development through passing or not passing laws?

Mr. MURRAY. Senator, I must apologize, I did not catch the question.

Senator MANSFIELD. I say, can you keep back nuclear development in any part of the world, either through passing or not passing laws?

Mr. MURRAY. I don't think so.

Senator MANSFIELD. In other words, can you chain the minds of men and can you hold back scientific development on that basis?

Mr. MURRAY. I don't think so, Senator.

Senator MANSFIELD. Did we get technical assistance from others who developed atomic energy in the first place?

Mr. MURRAY. We surely did. We got it particularly from the United Kingdom.

Senator MANSFIELD. From the United Kingdom?

Mr. MURRAY. The United Kingdom.

Senator MANSFIELD. Italy, Denmark, and other places?

Mr. MURRAY. That is right.

Senator MANSFIELD. At least the citizens of other countries.

Mr. MURRAY. That is right.

Senator MANSFIELD. How does the United States compare with the Soviet Union in the field of competent scientists at the present time?

Mr. MURRAY. I can hazard a guess, Senator Mansfield. I think we are way ahead of them.

There have been statements, as you have read, that they are rapidly catching up with us. I think there is a relative situation. I believe that they have competent scientists; there is no question about that. The rate at which they are increasing their scientific knowledge, as I say, I just don't know. I have a feeling, however, that they are very good in this field.

STOCKPILES OF NUCLEAR WEAPONS

Senator MANSFIELD. One more question, Mr. Murray. You have used the word "stockpile" several times in your statement and in your answers to questions posed by members of the committee. What, in your opinion, will happen if these stockpiles continue to grow all over the world?

Mr. MURRAY. When you have a stockpile of weapons and some emergency occurs, you are liable to use them.

Senator MANSFIELD. Are we beyond the saturation point?

Mr. MURRAY. This country? I don't think I can answer that question.

Senator MANSFIELD. That is all, Mr. Chairman.

The CHAIRMAN. Mr. Bricker, any questions?

CONTRIBUTIONS OF RADIOACTIVE MATERIAL TO THE INTERNATIONAL AGENCY

Senator BRICKER. Mr. Murray, do you know Dr. H. Bentley Glass, of Johns Hopkins University?

Mr. MURRAY. I have never met him but I know who he is.

Senator BRICKER. Is he a reputable scientist?

Mr. MURRAY. As far as I know he is an excellent scientist.

Senator BRICKER. Is there any danger of giving off into the atmosphere any radioactive substance from power reactors?

Mr. MURRAY. Yes, surely, in processing of fuel elements and disposal of wastes.

Senator BRICKER. This is, in essence, a power reactor program, isn't it?

Mr. MURRAY. Yes, sir.

Senator BRICKER. There is nothing that can be done in this field except what is being done constantly by elaborate arrangements at the present time, is there?

Mr. MURRAY. No, sir.

Senator BRICKER. Have any other countries, other than the United States, given assurances of contributing any radioactive material to this International Agency?

Mr. MURRAY. Not that I am aware of.

Senator BRICKER. Did Russia promise any?

Mr. MURRAY. Oh, I beg your pardon, the United Kingdom and U. S. S. R. did promise. What I meant was, I have no figure of the amount they intend to contribute. I am told, Senator, that it is a very small amount. One is 20 kilotons and I don't know what the U. S. S. R. figures, but it is a very small amount, compared to our 5,000.

Senator BRICKER. Do you have confidence in Russia keeping her promise, if she did make it?

Mr. MURRAY. I have no confidence in Russia living up to any promises.

Senator BRICKER. Wouldn't we be giving them a vote in entering into this agreement?

Mr. MURRAY. We surely would be giving them a vote.

Senator BRICKER. Mr. Chairman, there is an article in yesterday's paper by Dr. H. Bentley Glass, a rather noted scientist, in fact, from Johns Hopkins University, in which he said:

> I have seen it stated on good authority that a 100-megawatt heat reactor will produce annually the same quantity of long-lived fission products as the detonation of a 1-megaton fission bomb.

Have you the background to say whether that is or is not the situation?

Mr. MURRAY. I haven't but it may be in that general field. But let me add, Senator we may be able in time to control this material from our atomic reactors.

Senator BRICKER. That is being worked on now, isn't it?

Mr. MURRAY. Surely, so this is something that is in the realm of possibility, and we are working constantly on that.

Senator BRICKER. I know we are, but it has not been accomplished yet.

Mr. MURRAY. No, not completely at the moment; no, sir.

Senator BRICKER. I ask, Mr. Chairman, that this article in regard to the long-lived isotopes that are produced, the danger of not only the isotopes, but also the disposal of the waste products be placed in the record.

The CHAIRMAN. It will be so done.

(The article referred to follows:)

[Columbus (Ohio) Dispatch, May 19, 1957]

RADIATION HELD PERIL TO MANKIND

BIOLOGIST WARNS AGAINST DANGERS OF ATOMIC ENERGY

BROOKHAVEN, N. Y., May 17.—Is radiation from the "peaceful" atom becoming a greater threat to the human race than the fallout from testing nuclear weapons?

A noted American biologist indicates the answer is "yes."

Dr. H. Bentley Glass, of Johns Hopkins University, described the dimensions of the danger before the Inter-American Conference on Atomic Energy, holding its closing sessions today.

He said:

"The threat to mankind of exposure to radiation arising from the peaceful development of atomic energy may outstrip not only that from exposures due to weapons testing and fallout, but even that from the exposure necessary for medical and dental diagnosis."

His talk was prepared for more than 200 United States and Latin American scientists in the atoms-for-peace symposium at Brookhaven National Laboratory.

The effect on human reproductive capabilities due to radiation from testing weapons "need not cause undue concern," he said.

But he said isotopes created in a weapons explosion, lodging in the bones or thyroid glands, "may arouse concern regarding their somatic effects." He cited the possibility of causing cancer, the blood disease of leukemia, and shortening of life.

The problem of dispersing of atomic waste products which are still "hot" is growing rapidly, Glass said.

"I have seen it stated on good authority that a 100-megawatt heat reactor will produce annually the same quantity of long-lived fission products as the detonation of a one-megaton fission bomb," he said.

"When it is envisioned that by 1965 Great Britain expects to be producing 6,000 megawatts of atomic energy, and that within 20 years the United States may produce 20,000 to 40,000 megawatts, it is quite clear that the safe disposal of these fission products will be of major proportions."

He said the Los Alamos, N. Mex., atomic laboratory alone has already used up 40 acres for underground storage of waste products, and needs more ground now. Glass said that atomic accidents—an exploding reactor, or transportation mishaps—would constitute a serious danger.

"If even 1 percent of the long-lived fission products produced at a 20,000 megawatt annual level of atomic power were to be released by leakage and accident, the effect would be equivalent to the radiation of 100 bombs of the Hiroshima size," the scientist said.

He said it is "imperative" that some system of keeping a continuing record of exposure, for every human being, be set up.

Following the sessions at the Brookhaven nuclear research center, the Latin American delegates were scheduled to visit atomic energy establishments in Oak Ridge, Tenn., and Chicago, hospitals in New York, Rochester, Boston, and Bethesda, Md., the universities of Maryland, Illinois, and Michigan and Penn State and Columbia universities, and other research stations at Lynchburg, Va., and Beltsville, Md.

The CHAIRMAN. Have you finished?

Senator BRICKER. That is all.

The CHAIRMAN. Mr. Dworshak.

BILATERAL AGREEMENT VERSUS INTERNATIONAL AGREEMENT

Senator DWORSHAK. Mr. Murray, I have always considered you quite a realist in the consideration of atomic energy. I wonder if you can give me any enlightenment concerning the potentialities of getting more effective results through an international agency in a treaty of this kind than through the 41 bilateral agreements which the United States has with other countries dealing with this same subject.

Mr. MURRAY. Well, I am not an internationalist. I hope I am a realist. I personally believe that the bilaterals that we are making with these other nations is a short-term arrangement. That is my analysis of it. They are good. They should be continued. But we, in turn—under those bilaterals—we, the United States, impose all of the conditions. It is not a question of whether I would like to do this or do that. You must follow. And so I can see at a reasonable

future time that they will try to get out from under bilaterals with various nations.

Senator DWORSHAK. I wonder if they would try to get out from under them if such agreements are beneficial to these nations.

Obviously the United States is in the vanguard of nations developing the potentialities of nuclear power, and certainly the United States has more to offer and to expect to receive through these agreements, these bilateral agreements; is that not true?

Mr. MURRAY. Yes; I think so.

Senator DWORSHAK. To a large extent.

Mr. MURRAY. I think so, Senator, but I think every nation of the world, these 81, are very jealous of their sovereignty. They don't want a policeman from the United States, just from the United States, coming in there watching them.

I don't know what kind of uniforms we will have on when we go in but I think that this is a very good thing. It is a matter of judgment. I don't know how long this bilateral agreement may last. Some may go on indefinitely. With others, I think they are going to be very short term.

Senator DWORSHAK. You think in the interests of promoting peaceful uses of atomic energy, the United States is justified in entering into such an international treaty to set up this Agency so that we can make available our research and contribute atomic energy presumably for peaceful uses.

You think that we are justified from every angle in doing that and, at the same time, overlook the possibilities of other countries diverting any of the research material we present to other than peaceful purposes?

Mr. MURRAY. Yes; I think so. We must not overlook the possibilities. We must do all we can, and as the Agency progresses, we may find other ways and methods and means to do a better job than is now outlined in this treaty.

Senator DWORSHAK. Following that same line of thinking, would you be in favor of making available research and all the latest designs of aircraft that we have developed in the United States to countries throughout the world under an international agreement or treaty of that kind?

Mr. MURRAY. Senator, that question, I think, is a little further than the one that Senator Hickenlooper talked about, about automobiles and so on, but the question of development in airplanes to me, or guided missiles, and atomic energy, and the threat of nuclear weapons is such that I don't believe, I don't think of it, at least——

Senator DWORSHAK. There is no analogy?

Mr. MURRAY. Oh, there is an analogy; yes, surely.

Senator DWORSHAK. If we can rely upon the cooperation of these countries in utilizing all the materials, the research they would get under the terms of such a treaty, solely for peaceful purposes, then why couldn't we expect them to use all of the information and the designs we might give them on aircraft for peaceful purposes, if we merely stipulate that they can't divert any of this information or knowledge for other than peaceful uses, for military purposes, for weapons.

Mr. MURRAY. I think that this Agency will tend toward just that, that they won't use the technology they get in the airplane business to deliver atomic weapons.

Senator DWORSHAK. You said you did not think you could trust them in that?

Mr. MURRAY. Oh, yes; I think you could. I think this Agency is a step in that direction.

Senator DWORSHAK. Then you have almost unlimited confidence and faith in the reliability of these countries. You said a little while ago you did not have any faith in any agreements with Russia, or did I misunderstand?

Mr. MURRAY. No; you did not. I have no faith in them at this time but I believe that this Agency will create the framework under which Russia and the other countries of the world will have to operate, if they are going to continue to exist and be recognized as a nation.

Senator DWORSHAK. What would be accomplished through this International Agency that we do not have available now in the way of world thinking or public morality or call it what you will?

Can't we, through this contingency of thinking toward peaceful concepts and motives, force the Red countries to cooperate with us? Why can't you do that now?

Mr. MURRAY. I don't think we as a nation itself can do that.

Senator DWORSHAK. But we can do it through an international agency.

Mr. MURRAY. I think we have a good chance of doing it.

Senator DWORSHAK. Just as I told Admiral Strauss the other day, I wish I could be that optimistic. I have not reached any definite conclusions in regard to this treaty, but as I look back over the years and see how disillusioning has been our experience in dealing with countries through various agencies on an international level, then why should we now be so trusting that we can expect a greater measure of cooperation than we have had in the past?

Is it just because we are dealing with something which is so potentially devastating in its far-reaching effects or possibilities? Is that the main reason?

Mr. MURRAY. I don't think, Senator, it is a matter of trust. It is a matter of there being only one path ahead of us at the present time to take and, up to date, this, to me, offers the best solution, to try in some way or other to get control of atomic energy.

Senator DWORSHAK. And we can do a better job than we can through bilateral agreements in your opinion?

Mr. MURRAY. In my opinion, yes.

Senator DWORSHAK. Thank you.

STRONTIUM 90

The CHAIRMAN. That concludes our examination, Mr. Murray. Thank you very much for coming. You may be excused, unless you have something you wish to add.

Mr. MURRAY. I just have one suggestion to make for the record here. Earlier I spoke of 10 units of strontium 90 in the bone as the danger point, and without retracting from that term, I should add that 100 units is considered the permissible level for the general population. I would just like to have that as part of this record.

The CHAIRMAN. Thank you very much.

Mr. MURRAY. Thank you, Mr. Chairman.

The CHAIRMAN. The next witness is Mr. Clark M. Eichelberger, American Association for the United Nations.

Mr. Eichelberger sent word that he could not come, and his statement will be put in the record. It is dated May 17.

(The statement of Mr. Clark M. Eichelberger follows:)

AMERICAN ASSOCIATION FOR THE UNITED NATIONS,
New York, N. Y., May 17, 1957.

Hon. THEODORE FRANCIS GREEN,
Chairman, United States Senate Foreign Relations Committee.
United States Senate,
Washington, D. C.

MY DEAR SENATOR GREEN: Inasmuch as I am unable to appear before the public hearing on Monday, May 20, I appreciate the opportunity of filing this personal statement on the International Atomic Energy Agency.

I have attended many of the meetings of the United Nations General Assembly. And, before that, I attended many meetings of the League of Nations Assembly. Indeed, I think I have heard my share of the international speeches that have been made in our time. And I want to say that the address of President Eisenhower before the United Nations General Assembly on December 8, 1953, was one of these great addresses.

Viewed in historical perspective, I am sure it will remain so, because, in dealing with a new source of energy capable of transforming the earth, the President was insisting its use should be the moral responsibility of mankind. Beginning with a warning of the terrible tragedy that atomic warfare could bring, the President quickly turned to the positive side of the atomic picture. He said that possibly the governments could have more success in dealing with the military side of atomic energy if they turned their eyes to its positive use. He then followed with a vision of what the application of atomic energy could mean to man's peaceful development; and he suggested an agency to accomplish this purpose be established under the aegis of the United Nations.

I watched the delegates on the floor—delegates from 60 nations. Up to that moment many of them were skeptical of the American position on atomic energy because the United States had used atomic bombs in war. Soviet propaganda had asserted that we wished to use atomic energy to dominate the earth. The delegates leaned forward in their chairs. Here was the new challenge; here was hope for all mankind. It was the United States that was giving this challenge and this hope. I was very proud of my country.

I am not going into the technical phases of the Agency on which you are deliberating. You have with you Ambassador James J. Wadsworth, who has very ably represented the United States in the long negotiations culminating in the statute adopted by the conference of 81 nations at the United Nations last October. But may I make a few points about the Agency that I believe are overwhelming in their importance.

The coming of the atomic age may be as profound in its consequences upon the lives of mankind as were the effects of the industrial revolution. We know that this revolution came in a haphazard manner. In the beginning there was very little social conscience accompanying it. Consequently the industrial revolution produced slums, child labor and some of the worst features of colonialism. It has taken generations to erase the harm while preserving the benefits of industrial development. Now, when the President of the United States suggested his bold program for utilizing the benefits of atomic energy for all mankind and proposed an agency to further this result, he took a vital step to assure that the benefits of the second industrial revolution are realized without the evil consequences that might follow if this energy were utilized in an international jungle.

The Secretary General of the United Nations, speaking at the opening of the conference to create the agency, said: "The demonstration of the will of nations to act in concert for the development of atomic energy for the common good gives reason for hope that the second industrial revolution, soon perhaps within reach, will be free from several of the weaknesses which cast their shadow on the industrial revolution of the past century."

Again may I point out that opening the agency to a great part of mankind means that fear of a new type of colonialism will not develop. Suppose the Western nations with the technical know-how and vast uranium deposits and the Soviet Union were to proceed individually or bilaterally to develop atomic-energy programs. It would seem to a vast part of mankind that Western powers, among them the colonial powers, were seeking a monopoly of the capacity to utilize atomic energy and that a new type of colonial domination was developing.

Consider the statement made by a famous Indian physicist at the United Nations Atomic Energy Conference in Geneva 2 years ago. He said that India was so deficient in sources of power and energy that if she were to attain the living standards of the United States, she would exhaust her energies in 10 years. It would seem, therefore, that hundreds of millions of the peoples of Asia could never attain the standards of the West. But now, the Indian physicist says that with the sharing of atomic energy India need no longer fear the exhaustion of conventional sources of power. It may be that for a few years the disparity may be greater between East and West because the Western powers may be able to utilize atomic power more quickly. But, in the long run, atomic energy may well be the means by which the have-not nations can escape their economic inferiority. They believe this fervently.

And, in the third place, may I point out how important it is that the statute includes the principle of inspection without the paralyzing factor of the veto. Inspectors from the agency can visit any country given fissionable material by the agency to be certain that the material is utilized for the peaceful purposes agreed upon, and not diverted to military purposes. This principle of inspection was accepted by the Soviet Union and may very well be the later pattern for inspection in a series of disarmament agreements. There are some nations that would prefer to have United Nations inspectors than those of one country visiting their atomic installations. The United States will be saved a considerable burden and given added assurances by thet application of United Nations inspection.

I believe that the International Atomic Energy Agency will be the most important agency of the United Nations family, second only to the United Nations proper.

Here we have in our hands a new source of energy that can destroy life on this planet or transform the earth. Shall we help to control it and direct it for the benefit of ourselves and all of mankind, or shall we let the course of events proceed without much help from us; indeed, permitting the dominant role to be played by others, some of whose purposes are antagonistic to ours. Certainly it is to the advantage of the United States to work for a peaceful order of mankind in which steps are taken cooperatively to eliminate inferiority between nations. Anything that removes poverty and misery and adds new sources of health and power in the underprivileged areas is from every standpoint a benefit to us. I would dread to think that atomic energy might be carried to nations that do not now have its possibility in a program of bilateral rivalry without adequate international control. It is to our immediate interest to see that as many nations as possible cooperate on the basis of equality through an agency, the very purpose of which is to avoid this rivalry as much as possible.

The statute itself recognizes the principle of equality of nations, while at the same time giving the responsibility and authority to those nations, such as the United States, who are pioneers in atomic development.

The United States suggested this agency to the world. It is unthinkable that it should not join it. If we refuse, the good faith with which the United States is held abroad will be seriously questioned and the cause of international cooperation turned back from what may be its highest point. Certainly the United States must be one of the first nations to join the agency.

Faithfully yours,

CLARK M. EICHELBERGER.

The CHAIRMAN. The next witness is Prof. John S. Toll, University of Maryland, a member of the Federation of American Scientists.

Due to the number of witnesses, I am going to ask each witness from now on to see if he can confine his oral remarks to 6 minutes and we will let him put the balance of his prepared statement in the record. There must be some limit, too, on the balance. The committee reserves the right to shorten it if necessary. Professor Toll, will you proceed now?

STATEMENT OF JOHN S. TOLL, PROFESSOR OF PHYSICS AND CHAIRMAN OF THE DEPARTMENT OF PHYSICS, UNIVERSITY OF MARYLAND, ON BEHALF OF THE FEDERATION OF AMERICAN SCIENTISTS

Mr. TOLL. Thank you, Mr. Chairman.

My name is John S. Toll. I am a professor of physics and chairman of the department of physics at the University of Maryland, and a former member of the executive committee of the Federation of American Scientists. It is a great privilege to appear before you today to present testimony on behalf of the Federation of American Scientists (FAS) in support of prompt ratification of the statute of the International Atomic Energy Agency. This testimony has the approval of the executive committee and the atoms-for-peace committee of the FAS, and is consistent with longstanding policy established by the national council. This testimony has been approved by our executive committee.

The Federation of American Scientists is a nationwide organization of scientists and engineers concerned with the interrelations of science and world affairs. Our organization was formed in 1946 by a federation of various groups of atomic scientists organized at Los Alamos, Oak Ridge, Chicago, and the other atomic-research centers after the explosion of the first atomic bomb. The membership also includes scientists and engineers of all fields who support the aims of the federation in working for a stable world peace. Our group has maintained a continuous interest in sound development of atomic energy and its application to peaceful purposes.

UNITED STATES LEADERSHIP IN ATOMIC-ENERGY FIELD

As scientists, many of whom have taken part in the development of atomic weapons, we are especially concerned that the United States maintain a position of leadership in the atomic-energy field. The United States and its allies led in the development of the first atomic weapons, and the world looked to our Nation for similar leadership in developing peaceful uses of nuclear energy. There was a gratifying response throughout the world to President Eisenhower's historic address before the U. N. General Assembly in December 1953, when the proposal for the International Atomic Energy Agency was first presented. A new feeling of hope for growing international cooperation on atomic-energy matters followed the dramatic exchange of technical information at the Geneva Conference on the Peaceful Uses of Atomic Energy in August 1955. This atmosphere of hope and good will has continued, as shown by the successful negotiations for the IAEA and by the unanimous adoption of the statute at the drafting conference.

The statute has now been signed by 80 of the participating nations and has been ratified by 9 nations, including the U. S. S. R. As Ambassador Wadsworth explained in his testimony before this committee last week, the Preparatory Commission is meeting today to set a target date for the first meeting of the General Conference and the Board of Governors of the IAEA. The Agency will begin formal operations as soon as the statute has been ratified by 18 of the signers, including 3 of the major atomic powers. Early ratification of the

statute and continued leadership by our Nation in the implementation of the Agency's objectives will speed the international development of atomic energy. On the other hand, unusual delay and an appearance of reluctance in supporting the IAEA will dissipate much of the good will that we have gained so far by our leadership in atoms for peace.

INCLUSION IN STATUTE OF REASONABLE SAFEGUARDS

We recommend prompt ratification of the statute, without limitations, for the following reasons:

(1) The statute includes all reasonable safeguards consistent with effective operation of the IAEA. Since all recipients of nuclear fuels under the new Agency will be required to accept stringent inspection by the Agency, sufficient guaranties exist that these nuclear fuels will be utilized for the purposes authorized, with adequate provisions for public safety. Representation on the important Board of Governors is so designed that free and responsible nations will have a dominating position, thus assuring that the intent of the statute will be carefully carried out by a reliable staff. Each project will be carefully studied by the Agency before materials are supplied. The facilities which will be supported by the Agency—such as reactors for power or research purposes—are not of a type which would be optimum for the production of material for weapons applications. Any nation interested in constructing weapons material would actually find it less expensive to produce its own reactors specifically for this purpose rather than attempting to divert a small part of the material supplied by the International Agency or produced therefrom. Furthermore, any attempt at diversion is almost certain to be detected before appreciable amounts are involved. In brief, the statute appears to include all reasonable and adequate means for preventing misuse of assistance rendered by the IAEA.

NEED FOR AN INTERNATIONAL AGENCY

(2) Whether or not this International agency is founded, there will be rapid developments throughout the world in the peaceful applications of atomic energy. As many new nations enter this field, there will be increasing need for an international body to establish the necessary safeguards to protect the world's population. The IAEA would provide international standards for safe control of powerplants, atomic ships, and the many other atomic facilities that will be constructed, and can recommend policies to cope with the rapidly increasing problem of radioactive waste disposal.

MAINTAINING THE GOOD WILL OF WORLD'S SCIENTISTS

(3) The leadership which our Nation has taken in the preparatory stages of this Agency has helped to maintain the good will of scientists throughout the world. This international cooperation has been a great stimulus to our own atomic-energy program. The Agency can play an important role in the training of scientists and in sponsoring international scientific conferences and publications. We all know the leading part which scientists of foreign birth, such as Enrico Fermi, John von Neumann, Edward Teller, Eugene Wigner,

and many others, took in the development of our own atomic-energy program. Russia is now making a concerted attempt to win the good will of scientists. If we fail to ratify this statute promptly, we may do great damage to our reputation as a supporter of international cooperation in scientific and technical matters, and may temper the enthusiasm of scientists in other nations to assist in our program.

EXCHANGE OF INFORMATION PROVIDED

(4) At the Geneva Conference of 1955, the U. S. S. R. revealed for the first time substantial information about the status of its nuclear research. As a result, we are now better able to predict Russian progress in this field. The success of the IAEA will help to maintain an atmosphere in which nations are encouraged to report scientific results in order to retain international practice. Such exchange of information can only be of benefit to the United States.

(5) The inspection provisions of the IAEA apply only to atomic fuel distributed by the Agency or to materials produced from this fuel. They do not apply to other nuclear fuel and, hence, would not involve inspection of any United States facilities without our consent. Furthermore, our contributions would be in every way consistent with our own laws and only under our own initiative, and no classified information would be divulged.

DEVELOPMENT OF INSPECTION SYSTEM

(6) The development of an international inspection team and of a working inspection system may later be of crucial importance in the establishment of an effective system of international control of nuclear weapons, which is a major goal of our foreign policy. While such a step can only be achieved later, by mutual agreement among leading atomic powers, the progress of the IAEA in solving the technical problems of inspection may help to create public confidence that we can achieve a workable system of inspection necessary for a reliable disarmament plan. Such a step is necessary if we are to escape the threat of extermination in a future war and the heavy burden on our economy of the ever-increasing cost of our defense program.

PREPARATION PHASES INVOLVED

(7) The peaceful applications of atomic energy cannot be developed overnight. Before an underdeveloped nation can make use of large facilities, scientists and technicians must be trained; experience with smaller installations—such as research reactors—is a logical next step. The costs during the first few years will be small. The IAEA will serve an important role in indicating the necessary preparatory phases, and in providing training arrangements and counseling to interested recipient nations. The Agency will be able to arrangé multination projects when appropriate to conserve resources, and, by international cooperation, much waste can be prevented. By supporting the IAEA during the next few years, the United States can initiate developments of great promise and gain much good will from a small expenditure of funds.

I might just mention that members of our organization have been participating in the Inter-American Conference on the peaceful uses

of atomic energy held at Brookhaven last week. I have been told members of our group had to persuade representatives of other nations that there is a definite preparatory phase that will require much training.

If these negotiations were direct between our country and other countries, they might feel we were refusing their requests for immediate reactors on the basis of political considerations, but the onus would fall on an international negotiation, if it is an international agency which can assure that international standards and proper preparations are followed.

ECONOMIC PROGRESS OFFERED

8. The IAEA will offer great help for the development of the economies of underdeveloped nations, particularly those with limited power resources. Such economic progress will help to stabilize these nations and thereby make them less susceptible to international subversion or Communist penetration. It would be folly to reject the IAEA at this stage, for Russia is eager to pose as the exponent of peaceful developments of the atom, and would immediately establish its leadership and contrast its attitude with ours, to the great detriment of the United States.

As a major step in the long struggle to bring peace and justice to the world community, we strongly urge your early and unqualified endorsement of the Statute of the International Atomic Energy Agency.

The CHAIRMAN. Let me congratulate you on your sense of timing as well as the substance of the paper.

Mr. TOLL. Thank you, sir.

The CHAIRMAN. Perhaps there are some questions.

Have you any, Senator Hickenlooper?

Senator HICKENLOOPER. Yes.

I want to discuss the statement that it could lead to control of powerplants and all other atomic facilities of that kind.

You touched on it a little later in your statement, but I take it that you are aware that the International Agency will not control us nor will it control Russia, nor will it control Great Britain, nor will it control other countries that do not contribute materials to the Agency.

Mr. TOLL. That is, nations not receiving them.

Senator ANDERSON. That do not request materials.

Senator HICKENLOOPER. That do not request, excuse me, that are not recipients of materials from the Agency, so that the controls which result from this statute would not be placed upon the major atomic powers today—that is an assumption based on the wording of the statute.

Mr. TOLL. That is certainly correct.

Senator HICKENLOOPER. I don't assume that Russia is going to request materials from this Agency. I don't assume that we will, and I don't assume Britain will, and it is possible that Belgium and Canada will not, because they have materials available of their own. So the controls over the utility of the material would really be only in a minor degree as compared to the overall utility of the materials by other nations, that is, when you include Russia and the United States and so on. Is that your understanding of the matter?

Mr. TOLL. Yes, sir, that is correct; but we believe that the International Agency could, by creating proper standards for international safety, propose standards which the force of public opinion in the world would then support, and there would, therefore, be a tendency of nations to abide by the international standards discussed and clarified by this Agency, but there would be no compulsion at the present time.

EXCHANGE OF SCIENTIFIC INFORMATION

Senator HICKENLOOPER. Mr. Toll, I notice you have emphasized, as has the Federation of American Scientists from time to time, that we are stifling ourselves by the lack of exchange of information, and I presume that experience has shown that in many cases ready exchange of information, as has so often been referred to, between professional minds has been helpful in development. That is an argument strongly used for much greater freedom for international discussion of all these things.

It is difficult sometimes for me to follow that to its logical conclusion when I recall that Russia has the most secretive, compartmentalized, and closely guarded system that the world has ever seen.

There is no apparent discussion between the Russians and others on the scientific matters and yet you see in the paper people say Russia has made the greatest progress in science in the last several years of any country in a comparable period of time. Yet Russia does not let her minds function with minds of others, and she has accomplished this under this fantistically closely guarded secrecy system.

I say, I don't always follow the logic of that argument which says that we should give away a great many of our secrets or make them available to others. The Russian situation troubles me a little bit on that question.

Mr. TOLL. I think I should mention the Geneva Conference of 1955 as an excellent example of the way we do benefit from an exchange of information.

We proposed this Conference, backed it strongly, and there was wide response to it throughout the world. The Russians were reluctant, but in order to regain prestige, they were forced to come forward at this Conference and reveal a great deal of information about their program which they had not previously released. Here we found out a great deal about this program.

I think in order to maintain international favor, they will continue to have to do this if we support the open exchange of scientific and technical information.

Also, it is true that about the time of the fall of Stalin, it appears that Russia did relax many of her restrictions on intercommunications among her scientists, on communication of her scientists with other countries and some of the great strides that have made since that time are in great part due to the comparatively greater openness that they now show in scientific research than they had prior to that time.

Senator HICKENLOOPER. I am not a scientist, and so I am utterly unable and incapable of evaluating the benefits of the Geneva Conference.

I was there as sort of a hanger-on, but, of course after the introduction, the giving of the scientist's name, they left me in the scientific discussion. I am not capable of following it.

But I will suggest there is some difference of opinion as to how much Russia revealed actually at that Conference that was not already known. I say there is a difference of opinion on that from people who are far more competent to pass on that than I am.

Mr. TOLL. I might mention that a professor and I were discussing this testimony and he was present in that Conference and he urged me to stress the importance of the Conference and how much it meant to the scientists in learning about the Russian information in a substantial way.

Senator HICKENLOOPER. Purely from my discussions with people who are capable in the field, I came to the conclusion that it may have been of greater importance only as a matter of international relations with many other countries of the world who understood better the position and the objectives of the United States, and so it may have had a greater political benefit than a scientific benefit, although I am convinced there were scientific benefits.

RUSSIAN CONTRIBUTION

Just one other thing. It has been constantly pointed out to us in these hearings that Russia has deposited her instrument of ratification. Therefore Russia is about to take this ball and make a touchdown with it. She may be trying to do that, and yet Russia has offered at our figures, about $900 worth of U–235, 50 kilograms, I think, at a little less than $18 a kilogram.

Mr. TOLL. Now, it is thousands of dollars per kilogram, sir.

Mr. HICKENLOOPER. That's right.

Mr. TOLL. It is in the order of $5,000 to $10,000 but it certainly is true that they have as yet offered much less than we have as Commissioner Murray pointed out.

Senator HICKENLOOPER. It is 50 kilograms as compared to 5,200, which the United States through its present statements has made available, and I have heard no word even since the depositing of their agreement of ratification that Russia is prepared to make any more of this material available to this Agency. And yet by depositing their agreement they get a ticket to the show, and apparently a front seat and full participation in the direction of this Agency, without putting in any material or substantial contribution to the Agency. I don't think it follows that any one who looks at that logically can say that they are in the leadership in that.

Mr. TOLL. Just in answer to that point, I might state it is as the statute is now drawn, we can be assured there will be a majority of nations friendly to us controlling this Agency at the present time, so Russia, if we go along, will only participate to a lesser extent as she is forced to do so by world opinion.

The CHAIRMAN. Senator Anderson.

Senator ANDERSON. As you know, I am acquainted with a great many members of this federation. Is this their official statement?

Mr. TOLL. Yes. It has been approved by our executive and by our atoms-for-peace committee.

Senator ANDERSON. Following Senator Hickenlooper's questions on participating, was it not true that at the Geneva Conference Skobeltzin was actually declassifying figures as he went along? Didn't the Russians actually declassify under his leadership there?

Mr. TOLL. Yes.

Senator ANDERSON. I took part in Rochester at a meeting of physicists, and a Nobel Prize winner in Russia in physics was there. Given a chance, don't the Russian scientists like to participate in these conferences?

Mr. TOLL. Yes; they have been in recent years participating to a much greater extent than they were previously.

Senator ANDERSON. And this might give them a chance?

Mr. TOLL. I think we should do everything we can to induce them to do so.

Senator ANDERSON. Thank you very much.

The CHAIRMAN. Thank you very much, Mr. Toll.

The next witness is Professor Charles Price, of the University of Pennsylvania, representing the Friends Committee on National Legislation. We will be glad to hear from you.

STATEMENT OF CHARLES C. PRICE, PROFESSOR OF CHEMISTRY AND CHAIRMAN OF THE DEPARTMENT OF CHEMISTRY, UNIVERSITY OF PENNSYLVANIA; MEMBER OF THE FRIENDS COMMITTEE ON NATIONAL LEGISLATION

Mr. PRICE. Senator, it is a privilege to be able to present testimony for the Friends Committee on National Legislation. As you know, this is an organization of the religious society of Friends, which seeks to represent many of the concerns of Friends, but which does not claim to speak for all Friends, since the democratic nature of the society does not lend itself to official spokesmen.

The Friends have long been interested in promoting those actions by our Government which will build a just and peaceful world community. We believe the proposed IAEA is an historic and significant step in this direction.

INTERNATIONAL INSPECTION

It provides that all nuclear materials produced by or handled by it will be used for peaceful purposes. To assure that none is diverted for unauthorized or weapons purposes, all recipients must agree to accept rigorous inspection by Agency inspectors with full authority to carry out their duties. The Agency thus will provide an example of the utility and effectiveness of such international inspection and will thus provide invaluable experience for more extensive steps in inspecting agreements to divert nuclear power from military ends to the constructive service of mankind.

The importance of this aspect of IAEA as a pilot study of international inspection is recognized in the Statute itself (article III, section B1) where it states that—

> the Agency shall conduct its activities in accordance with the principles of the U. N. to promote peace and international cooperation, and in conformity with policies of the U. N furthering the establishment of safeguarded worldwide disarmament * * *.

FURTHERING WORLD ECONOMIC DEVELOPMENT

The proposed Agency offers the opportunity of becoming an important instrument in furthering world economic development by helping many nations to harness the power of the atom and, at the same time, of providing an important testing ground for further progress in the effectiveness of the international inspection, which must be an essential ingredient of any step toward safeguarded world disarmament. We therefore respectfully urge your early ratification of the Statute for the IAEA.

IMPORTANCE OF RATIFICATION OF STATUTE

I would like, if I may, to take a moment for a personal comment, which I hope will be properly understood. I am prompted to by my appearance a week ago in open hearing here on a TV program in Washington, and one of the questioners asked me a question at that time—we were discussing the H-bomb issue at that time—about the German scientist who had issued a statement in Germany about their desire not to cooperate with the development of atomic energy in the Soviet Union. I was asked the question if I thought the American scientists would ever take such a position. I said I did not, but I do want to point out that many, many scientists are deeply concerned about their part.

I was last year's chairman of the American Federation of Scientists, and I know of the concern of many of these scientists with this question. I know I, personally, am concerned, although I am a Quaker, I am chairman of the American Chemical Society, advisory committee of the Chemical Corps, and I do research for the Signal Corps and Quartermaster Corps.

It is my hope and assumption that the United States will use its power, military power, only to avoid war and bring a just and peaceful world order.

If our Government should reject such an important and constructive step as the ratification of the Statute for an International Atomic Agency, it would raise the gravest doubts in my conscience about the motives and course of our actions in the world, and I think this is an important point, and I hope it will not be misunderstood. Thank you.

The CHAIRMAN. Are there any questions? Thank you very much for your appearance.

The next witness will be Mr. Kenneth M. Birkhead, executive director, American Veterans Committee. I understand that Mr. Birkhead has requested that his place in the schedule of witnesses be changed with Mrs. Gladys Walser of the Women's International League for Peace and Freedom.

STATEMENT OF KENNETH M. BIRKHEAD, EXECUTIVE DIRECTOR, AMERICAN VETERANS COMMITTEE

Mr. BIRKHEAD. I will be glad to do that, Senator. With the permission of the committee, I ask you to merely accept my statement at this time, and to turn my time over to Miss Walser, if it is all right with you. I will submit my statement for the record at this point. I don't want to read it in; I just want to place it in the record.

The CHAIRMAN. How long is it?

Mr. BIRKHEAD. It is three and a half pages, double spaced.
The CHAIRMAN. That is all right.
(Mr. Birkhead's statement is as follows:)

STATEMENT OF AMERICAN VETERANS' COMMITTEE ON THE INTERNATIONAL ATOMIC ENERGY AGENCY, PRESENTED BY KENNETH M. BIRKHEAD, AVC EXECUTIVE DIRECTOR

The American Veterans' Committee appreciates this opportunity to appear before this committee and to express its views on the Senate ratification of the statute for an International Atomic Energy Agency.

The American Veterans' Committee believes that this action is among the most important that this Congress will take. Our organization strongly endorses Senate ratification of this treaty and urges this committee to recommend ratification to the Senate.

The International Atomic Energy Agency is a step in the right direction—a program designed to provide for the expanded use of atomic energy for peacetime purposes. Whether this program is perfect we certainly cannot tell now, but we do know that it has resulted from years of study and discussion and the most serious consideration by not only the leaders of our Nation but by the leaders of other free nations of the world. It is no hastily conceived spur of the moment proposal.

It has been suggested that this treaty is unnecessary since our Nation has already begun the interchange of materials, technical assistance, and engineering help to other nations of the world to bring the practical, peacetime benefits of atomic energy to them. This treaty would be a step forward in the program we have already started. It would expand this program and result in a coordinated and integrated international exchange of research, information, and understanding between scientists and technicians. It would make it possible for us to spread our know-how of the peaceful uses of atomic energy and, in turn, to benefit from the know-how we receive from the participating nations.

We know that this treaty has been attacked because some fear that enemies and potential enemies in the world might use the Agency to advance their war potential rather than their peace potential. AVC rejects this charge. Our study of the whole structure of the Agency indicates that there are many built-in safeguards against the misuse of any of the program. From the first steps in building any new reactors through each process in the production and use of fissionable material an inspection system is in full operation. Authorities indicate that the inspection program would be instantly able to detect any variance from the normal activities under the Agency's plans.

President Eisenhower has submitted this treaty to the Senate. He and leaders of his administration have endorsed the Agency. AVC does not believe that the President and those working with him on this treaty would be guilty of asking the Senate to ratify any agreement that would jeopardize the security of this Nation.

This Agency and the plans for its establishment were initiated by the United States. For years our Government has sought means to establish such an international body to promote the peaceful use of atomic energy. It seems to our organization that for the United States to back out at this moment would be a severe blow to United States prestige and would give the Communists a telling argument in the cold-war battle for the minds of men. They would be able to put muscle on their false propaganda that the United States is not really interested in peace.

AVC joined on May 11 in sponsoring the resolution adopted in Chicago by the United States Council of the 20-million member World Veterans Federation calling for Senate ratification of the treaty. Former Congressman, Gen. Melvin J. Maas, the chairman of the United States Council, will formally present this resolution to this committee. Our sponsorship of this resolution, as one of the American affiliates of the World Veterans Federation, was partly taken to emphasize to the veterans throughout the world that veterans of this Nation believe in the furtherance of this program to expand the peaceful uses of atomic energy.

Our organization has always supported the strongest possible defense for our Nation, as we are sure all veterans who served in our Armed Forces in time of war do. We have been willing to pay the price for a strong defense and we have opposed those who would try to weaken our defenses.

At the same time we have been equally opposed to putting all our eggs in the defense basket. We have just as strongly favored foreign aid, technical assistance, the United Nations and its various agencies as potent forces to see that our defenses are never tested and that American boys do not have to again face a shooting enemy.

AVC believes that the establishment of the International Atomic Energy Agency is an integral part of our efforts to bring the world closer to peace and to improve the lot of man so that he will never again be tempted to join the aggressor in combat.

We urge Senate ratification of the International Atomic Energy Agency Treaty.

The CHAIRMAN. Mrs. Gladys Walser, of the Women's International League for Peace and Freedom.

STATEMENT OF MRS. GLADYS D. WALSER, WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM

Mrs. WALSER. Thank you, Senator. I am very glad to be here, for two reasons. One is because I attended that remarkable and historical conference in which the statute was established, and the other reason is because I believe that the support which my organization wishes to give to this Agency is a thing that affects the peoples of the world.

I am Gladys Walser, 41 Greenwich Avenue, New York City, a member of the national board and the policy committee of the United States section of the Women's International League for Peace and Freedom, a nongovernmental organization with consultative status at the United Nations, and I have been its representative there for the past 10 years at the United Nations headquarters in New York.

I appear to record for our members their unqualified support for the immediate and unanimous consent of the Senate to the United States ratification of the statute of the International Atomic Agency, and to give our reasons for that support.

PEACEFUL USE OF ATOMIC ENERGY

At the beginning of this atomic age, there was an all-pervading fear that the atom harnessed by man would produce only disaster. Experience had put a heavy emphasis on the destructive potentialities of this new great source of energy. For the past 3 years, however, the feeling has been justified that the world has made progress along the road of hope and confidence. It has become increasingly clear that by acting together, the nations of the world may be able to put atomic energy to peaceful uses in such a way as to help create economic and social conditions that many of the present reasons for tension and conflict will be eliminated.

CONTRIBUTIONS OF UNITED STATES INITIATIVE

United States initiative has made two particularly outstanding contributions to the progress of the world community, which I believe will go down in history as a sign of greatness, and establish a just claim to the material and moral leadership of which this country, the richest and most powerful in the world, is capable. Inspired by the

action of the United States by worldwide program of bilateral aid, point 4, the United Nations in 1950 organized its first technical assistance conference, which resulted, as you know, in the expanded program of technical assistance which has undoubtedly become the best known and most widely acclaimed effort so far in the field of international cooperation, and it does it by helping people to help themselves in attaining economic and social stability, which is certainly a foundation of a peaceful world.

Then, in December 1953, President Eisenhower proposed to the General Assembly of the United Nations that an international organization be created to exploit atomic energy for peaceful uses on a worldwide scale. Thus he pushed forward the idea that the industrial revolution which has come in this atomic age will be one in which all nations may participate.

This United States initiative for the pooling of fissionable materials from the world's stockpile to be used for peaceful purposes found almost universal approval, and launched the Atoms for Peace program and earned the United States world leadership in this field as well as generating good will throughout the world.

It is to be hoped that this second initiative, the establishment of the Agency, will convince nations that far more can be gained by a cooperative world effort than by unilateral efforts.

CONFERENCE HELD TO DRAFT STATUTE

As you know, 78 of the 81 governments that participated in drafting the statute at the conference September–October 1956 by the United Nations have signed it, and 5 have ratified this spring. In summing up the accomplishments of the conference, the President, Dr. Muniz of Brazil declared that, notwithstanding the extreme complexity of the subject, the entirely new field in which it was working, the conference found it possible to arrive at unanimous agreement on setting up the Agency. In the midst of political controversies that confronted the world of existing antagonisms, the conference set a pace of sincere cooperation, objectivity, a spirit of compromise and give and take among the delegates, and it is here that I would like to put into the record a tribute to the United States delegation that negotiated on such a high level and accomplished so much, both for this Nation and for the world.

Political and ideological differences did not emerge in the debate, and the concensus among the great powers was particularly significant. With this opinion most of us who have followed closely all the developments since 1953 which culminated in the approval of the statute completely concur.

The most significant aspect of the discussion was to me the following:

(1) The development of a new relationship between the highly industrialized big atomic powers who will be suppliers of nuclear materials and the less industrialized nonatomic nations which will be the recipients of these materials for economic progress. The basis of this new relationship was a mutual respect for one another's views and a sense of equality in the give and take which prevailed throughout the discussions.

(2) The establishment of a new alinement of nations deviating from the traditional, geographical, cultural, ideological, and political

groupings. This was evidenced by the sponsorship of many amendments to the statute. To give one illustration: Bolivia, Burma, Denmark, Ethiopia, Iran, Switzerland, Thailand, and Morocco appeared as cosponsors of one of the amendments to the statute.

(3) The progress toward implementation of one of the main purposes of the United Nations Charter—that of international cooperation—was demonstrated by the willingness, even in respect to the most controversial issues, to accommodate the divergencies and diversities that make up the world community in such a way as to make agreement possible. This holds out hope that existing divergencies among great powers in other fields, such as disarmament, may be reconciled.

(4) A deeper understanding of change as a law of life, resulting from the impact of the vitality, enthusiasm, and drive of the newly independent countries upon the long-established Western nations who are more likely to be resistant to change. The insistence of the new nations that there is no place for cosiderations of absolute security in a world where nuclear weapons exist, and of maintaining the status quo, inflexibility, or permanency in a statute of an agency dealing with peaceful uses of a great new source of power—atomic energy—which is continually subject to new scientific and technological developments, resulted in a provision in article 18 which would allow the question of a general review to be paced on the agenda of the fifth session of the General Conference. Ten years' experience in the United Nations has shown that changes occur without basic revision of the charter, as, for example, the increased importance of the vetoless General Assembly rather than the Security Council in meeting threats to the peace and solving conflicts by peaceful means.

It was to us who were there regrettable that the media of mass communication did not carry more information of this historic event, as is often the case, with the development in the future life of humanity. This is no exception to it. It came about with little publicity, but with devoted hard work.

Since you have already heard from distinguished witnesses, Secretary of State John Foster Dulles, Admiral Strauss, Ambassador Wadsworth, Mr. Murray, and others, I shall say little about the objectives, functions, and powers of the international atomic energy statute. It is here in this book, and answers many of our doubts and many of our questions, and gives I believe complete confidence in this particular point of safeguards and controls over fissionable material.

CONTROLS OF THE AGENCY

But I would like to comment on 1 or 2 things. The Agency will not impose complete international control over nuclear fuel, even less over source of materials produced by member states. The controls of the Agency apply only within the limits of each project and each agreement voluntarily—and this word is important—voluntarily set up by the nations concerned, the suppliers and the recipients, and they are designed exclusively to guarantee that they shall not be used for military purposes, only for peaceful and safe use of all material supplied by the Agency or of their fissionable byproducts.

The CHAIRMAN. I am very sorry to say that your time has expired.

Mrs. WALSER. All right. Then I will pass on, if I may come to the end and have a few minutes to add this.

The CHAIRMAN. Very well, and the remainder of your statement will be included in the record.

Mrs. WALSER. I am very glad.

REASONS FOR SUPPORTING STATUTE

In conclusion, what I said was this. In regard to why our organization, the Women's International League, supports this Agency so completely, it is because of the two areas in which will be, I believe, the most fine experiment. One, in opening new communications of discussion. This has already been evidenced in the disarmament talks in London where it is much more serious, and the atmosphere is better.

The second is in the link to disarmament, and I believe, as many do, that the safeguards and controls in article 12 will be the beginning of the safeguards and controls that needs may be applied to an eventual disarmament treaty.

Since its founding in 1915 with Jane Addams as its president, we have believed in our international structure and in our international thinking, and I think it is very important that the United States take leadership in what I saw take place there at the conference, and international thinking on the subject of how man can share the benefits of the world.

Secondly, I believe that an aim may be served of both our organization and the world through the creation of an economic and social system that is going to help the needs of all rather than those of a few, and I believe it will do much to allay the fears of those who see what has been called missile diplomacy, the progress toward other weapons, if the United States with its leadership promotes the successful operation of the Agency.

Finally, confidence and unity are the cornerstones of enduring peace, and the Agency contributes to both of these.

Confidence can't grow in a divided, hostile world where fear and distress prevail, and unity cannot be built on constant opposition, but rather on cooperation.

The statute will come in force when 3 of the 5 great nations sign and enough others to make 18. There are reasons that no time should be lost, and all the world looks to the United States for leadership. We do not doubt that the Senate will consent unanimously to the ratification of this charter.

It is unthinkable that any obstruction should be put in the way of the United States fulfilling its leadership, not only because of the promises that have been made to the world, but because a real, positive leadership is necessary for both the Agency and the United States.

I believe that the gentlemen of this committee and of the Senate have the wisdom. I am confident it will be used in making the decision to advise unanimous consent to the United States ratification of the statute.

All of us will then see the validity of Arnold Toynbee's prediction that our age will be best remembered because its is the first age since the dawn of history in which mankind dared to believe it practicable to make the benefits available to the whole of mankind, and this must not only be a belief, but it must be acted on.

The CHAIRMAN. Thank you very much. I am the only one here to ask questions, and I am going to forgo that privilege because so many other witnesses are here. We don't want to cut them off entirely.

Thank you.

(The remainder of Mrs. Walser's statement is as follows:)

STATEMENT OF MRS. GLADYS D. WALSER ON BEHALF OF THE WOMEN'S INTERNATIONAL LEAGUE FOR PEACE AND FREEDOM, UNITED STATES SECTION

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The Agency is meant to be a free association of nations, intent upon helping one another, and determined to build a network of knowledge and technique which will bring all people the benefits of atomic progress.

As India pointed out in the drafting conference, besides the three powers—United States, the U. S. S. R., and the United Kingdom—that already have atomic weapons in great quantity, there are a number of states which have technical and material resources of their own, or received them from countries in a position to supply nuclear materials. These states can push forward their own atomic programs without aid from the Agency and make atomic weapons if they wish to. The Agency's powers of inspection and control would not apply to these states, but only to recipient countries, those technically underdeveloped, most in need of help in developing peaceful atomic-power programs and least in a position to make atomic weapons. They are, of course, most of the countries of Asia, Africa, and Latin America. Thus a division of the world into groups of atomic have and atomic have-not nations could create dangerous tensions that would defeat the very purpose of the safeguards—to build a secure and peaceful world.

Two steps are believed necessary to insure reasonable security in the atomic age: One would be the most careful inspection and control of diffusion and chemical plants in which special fissionable material is produced, coupled with strict accountability for this material. The second would be an agreement among the states to regard the production, testing, possession, and use of atomic weapons as a military act which automatically attracts previously agreed punitive measures. It is obvious until both these steps are taken the world cannot feel a reasonable security.

Though the Agency is not a shortcut to world peace, a disarmament plan, nor a panacea for the world's economic ills, it should be able to make a definite contribution toward world peace. The two areas offering it the greatest opportunity are that of communication, a new approach, already demonstrated in the current talks of the United Nations Disarmament Subcommittee, where it is conceded that a very different atmosphere prevails than heretofore and serious considerations are being given to achieving a limited arms-control agreement; the second area linking the objectives of the Agency with disarmament. Though the Agency will neither limit the quantity of weapons on hand nor prevent their acquisition, to the extent that producers of fissionable materials commit these products for peaceful Agency use, the objective of diminishing the potential destructive power of the world's atomic stockpiles will be served.

The creation of an effective international control and inspection system for the Agency and its subsequent experience and success may be adaptable to an armaments safeguard system. It could furnish an alternate route toward worldwide atomic disarmament by being able to control and inspect all new fissionable material made available by the Agency and insuring it cannot be used for bomb making. It could draw countries away from bomb production into the field of peaceful atomic fission.

Since its founding in 1915, with Jane Addams as its first international president, the Women's International League for Peace and Freedom has been international in structure and thinking. We welcome the fact that, although the United States played a leading role in its creation, the Agency statute was a result of truly international effort, reflecting the views of the less industrialized countries as well as those of the atomically advanced nations. There is reason to hope that the spirit of cooperation that prevailed during the negotiations will continue now the Agency is ready to operate. The United States, by advancing proposals acceptable to the majority on their merits, is still able to offer the right kind of leadership. The Agency needs the United States, and the United States needs the Agency.

In a world so closely bound together, no nation can do what it likes with its own. No man nor nation is as island. To be internationaly minded is a matter

of enlightened self-interest rather than of morals. It pays to agree with other nations whom you may harm, who may harm you, or with whom you might share certain benefits. Enlightened self-interest is not morality, yet morality would have come to the same conclusion, perhaps by a shorter, less painful route.

One of the main objectives of our league, in pursuing its aim to remove the causes of war, has always been total, universal disarmament. We believe that achievement of this goal will be facilitated by the operation of the Agency in the field of peaceful uses of atomic energy.

Another of our aims will also be served: namely, the creation of an economic and social system which will meet the needs of all rather than those of a few.

Now when many people are dismayed and deeply concerned at the missile diplomacy of this country in promising to supply NATO, the United Kingdom, and even Formosa with tactical nuclear weapons, there is greater need than ever for United States leadership in promoting the successful operation of the Agency to further peaceful uses of nuclear materials to the greatest extent possible, so that all may find a sounder basis of security.

Confidence and unity are the cornerstones of an enduring peace. The Agency contributes to both of these. Confidence cannot grow in a divided, hostile world where fear and distrust prevail. Unity cannot be built on constant opposition. We believe both confidence and unity can come out of an experiment in international relations through international cooperation for the common good. The Agency offers such an opportunity to experiment.

The statute will come into force when 18 states have ratified, provided 3 of the following are among them: The United States, the United Kingdom, the U. S. S. R., France, and Canada. To date Guatemala, Switzerland, the U. S. S. R., the Byelorussian Republic, Norway have ratified. The first general conference has been planned for August 19. Member-candidates for the Board of Governors must be decided on 90 days before the conference. While we do not doubt that they will consent unanimously, there is no time to be lost. All the world looks to the United States for leadership.

It is unthinkable that any obstruction should be put in the way of the United States fulfilling its obligations to make good its solemn promises to the world of 4 years ago, which raised the hopes of humanity as no other act of this country has ever been able to do.

You have the wisdom, gentlemen, which I am confident you will use in making your decision to advise unanimous consent to United States ratification of the International Atomic Energy Agency statute. All of us will then see the validity of Arnold Toynbee's prediction that "our age will be best remembered because it is the first age since the dawn of history in which mankind dared to believe it practicable to make the benefits available to the whole of mankind."

The CHAIRMAN. The next witness is Mr. Bernard Weitzer.

Mr. Weitzer, I will ask you to confine your oral remarks to 5 minutes.

STATEMENT OF BERNARD WEITZER, NATIONAL LEGISLATIVE DIRECTOR, JEWISH WAR VETERANS OF THE UNITED STATES OF AMERICA

Mr. WEITZER. I think I can complete this statement. It runs only about a thousand words. I will keep within the time, Senator, I know the problems that you have.

On behalf of the Jewish War Veterans of the United States of America, I am happy to express appreciation for this opportunity to present our views in favor of action by the Senate to ratify the international atomic energy statute which your committee is considering.

VIEWS OF NATIONAL CONVENTIONS

At our 60th annual national convention in Miami Beach, October 1955, the delegates unanimously approved "the action already taken by our Government in focusing attention on the peacetime uses of atomic-bomb materials" and urged "that activities in this field be intensified."

In August 1956 at our 61st annual national convention in Milwaukee, the convention delegates again expressed their views—

that we approved the actions already taken by our Government in focusing attention on the peacetime uses of atomic-bomb materials and releasing the necessary materials under safeguards for experimentation and for use by other countries of the world for similar purposes.

Our members who have served in our Nation's military forces during wartime are keenly interested in all matters that affect the national interest and the national security of our country. It is for that reason that we have vigorously and constantly supported legislation which provided for adequate military defense and other measures such as the foreign-aid program and the mutual-security program which help to insure a stronger free world in the face of the threat of the Communist regime spearheaded by the men in the Kremlin.

AGENCY AS A MEANS OF CURTAILING THREAT TO PEACE

With that same end in view—the national interest and the national security of our own country—we see the IAEA as a means of curtailing the threat to peace. We are proud that our country has taken the leadership in proposing this international agency and that we have been successful in gaining the acceptance of 80 countries for a program which will accelerate the means for using in peaceful works, the materials which we originally developed as the most destructive and dangerous weapon of all time. This is an almost literal realization of Isaiah's inspiring words, "They shall beat their swords into plowshares and their spears into pruning hooks."

SAFEGUARDS IN STATUTE

It is gratifying that in the statute are incorporated the safeguards against the use for military purposes and the misuse of atomic-energy materials, which our country has included in the bilateral agreements already made with some 44 other nations. In accordance with the provisions for approval of the project in which atomic materials are to be used and the constant on-the-ground inspection of the operation in which the atomic material is used, it appears certain that there is protection against inherent dangers to those who work on the project and the population in the areas. Likewise, there is certainty of discovery of any violations of the agreement under which the atomic-energy materials are furnished. Our own Atomic Energy Commissioners have apparently been satisfied on that score, else they would have spoken up. The members of the Joint Committee on Atomic Energy who are sitting in these hearings with the Foreign Relations Committee members have access to information which should make them knowledgeable of any hazard to our national interest from a technical standpoint.

BENEFITS AFFORDED BY STATUTE

Important as it is to examine with the greatest care, the safeguards provided in the statute, it is equally important to consider the benefits which will flow from the greatly widened opportunities which the statute affords to use atomic materials for peaceful purposes. The

scientists who uncovered nature's secrets and contrived the means to produce the atomic bomb and its kin, the hydrogen bomb, never dreamed, as they wrestled with their equations, of the awesome destructive force which they were unleashing. Just so, it is difficult to portray the benefits to mankind which will develop as the International Atomic Energy Agency goes on with its work.

It was reported within the past few days that England has exploded a hydrogen bomb. Its press has pointed to that explosion as a proof of Britain's military power and as an effective demonstration that England is still to be reckoned with as a world power. That feeling must be tingling the spines of the leaders of lesser nations around the world who will be inclined to develop, for themselves, such a hallmark of greatness.

It is fortunate that the IAEA statute is before you for consideration at this particular time. Your favorable action can turn the minds of all peoples toward concentration on peaceful uses of atomic-energy materials. As of now, the great stores of atomic nuclear weapons are in the arsenals of our own country and of Russia. For our own part, we know that we do not intend to use these weapons except in retaliation for atomic aggression. Russia knows that and consequently she hesitates to perpetrate any aggression. We have a standoff. That situation will be complicated if the other countries begin to accumulate a stockpile of atomic weapons.

Ratification of the IAEA statute by our country will continue the leadership we have taken in our bilateral agreements for the peace uses of atomic-energy materials and in initiating the international conference which have led to the statute before you. The journey to a durable peace is a long one. The Senate's ratification will be the important first step in that journey.

Our men who fought in uniform during the war, fought with the determination for victory in their hearts. At the same time, they hoped and expected that after victory would come peace. The veterans who were fortunate enough to return from war know its horrors and its cruelties from firsthand experience. They want a durable, permanent peace with justice. We recognize that no single action can be solely responsible for the achievement of that goal, but this statute which you all consider is a means toward the end that should be adopted without delay.

The CHAIRMAN. Thank you very much, Mr. Weitzer, for your statement. We are glad to have it. We won't have time for any questions.

The next witness is Mr. David Williams, legislative representative, Americans for Democratic Action.

STATEMENT OF DAVID C. WILLIAMS, LEGISLATIVE REPRESENTATIVE, AMERICANS FOR DEMOCRATIC ACTION

Mr. WILLIAMS. Mr. Chairman, owing to the lateness of the hour, I shall simply submit my statement for the record. I believe the staff already has a copy of it.

(The statement referred to follows:)

TESTIMONY OF DAVID C. WILLIAMS ON BEHALF OF AMERICANS FOR DEMOCRATIC ACTION

Mr. Chairman and members of the committees, I am David C. Williams, director of research and education of Americans for Democratic Action. I thank you

for this opportunity to appear before you, not to supplement the ample volume of expert testimony which you have already received, but to add our voice to those of many other Americans urging you to approve the treaty bringing into existence the International Atomic Energy Agency.

When President Eisenhower delivered his historic atoms-for-peace speech to the U. N. General Assembly, ADA hailed his proposal as "new and imaginative" and went on to say:

"It has put the United States in the role, so often and falsely claimed by the Soviet Union, of the seeker after peace. It has summoned the peoples and the politicians of the United States from sordid squabbling about the past, and raised their vision to the future."

Now, after 3 years of effort and patient international negotiation, the statute is before you for action. For a long time the Soviet Union openly scorned the President's proposal, and sought to exploit it for political ends. It is significant, I think, of the wide acceptance it has won that the Soviet leaders have reversed themselves, finding that they were in danger once more of isolating themselves from mankind.

We join with the President in welcoming Soviet participation—which, in his own words, may "open up a new channel for peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved in both private and public conversations, if the world is to shake off the inertia imposed by fear, and is to make positive progress toward peace."

During the period of the Soviet boycott of the atoms-for-peace program, the United States initiated it on a bilateral basis, and I note that the present intention is to continue these bilateral activities on a substantial scale. After the new Agency is established, we very much hope that the United States will show its confidence in it by channeling as large a proportion of its atomic program as possible through it.

I should like briefly to underline the potential contribution that the atom can make to world economic development. Atomic power may not be the overnight panacea that many underdeveloped countries dream about. The cost of the fuel is only one part, and a comparatively small part, of the investment involved in an atomic-energy program. Reactors, processing plants, and installations to house them are the really expensive items. Nevertheless, atomic power offers to the underdeveloped countries (and particularly to the many who suffer from shortages of fuel and power) a means to break a bottleneck that threatens their economic growth.

Although the atomic fuel furnished by the Agency will be paid for at a fair price, there is a tendency in some discussions of the subject to anticipate new demands for American aid in the form of grants to buy the fuel. Actually, to the extent that atomic fuel replaces costlier sources of power, it should in the long run reduce the cost of economic development, and therefore reduce the amount of investment—private and public—which may be needed from the industrially advanced states. Moreover, sound atomic-power projects should qualify for loans from the World Bank, the Export-Import Bank, or other lending institutions.

Mr. Chairman, I take it that you have already heard ample testimony on the important work the Agency can do in the field of research, exchange of scientific information, the application of safeguards and controls, and the development of health and safety standards. I shall therefore conclude with what seem to me compelling reasons for the prompt ratification of the proposed statute, without reservations.

The statute is the result of long international negotiation, culminating in its adoption by an 81-nation conference on October 26 last year. The United States took a leading part in this conference. As you have been informed, "a great many amendments, representing the multitude of special and regional interests, were proposed, and various of them, none acceptable to the United States, found a place in the final text." Nearly every nation came to the conference with its own ideas, but in the end (and not least due to the persistence and persuasiveness of our own delegates) the 81 were marching in step. To us, it seems unthinkable that the United States should now break step by imposing reservations on its endorsement—or, worse still, by refusing to endorse it, repudiate the leadership it has given in this field since December 8, 1953.

Indeed, we shall be missing a great opportunity if we do not give this proposal the sort of wholehearted endorsement which will show the world that the American people are solidly committed to it. America, in fact, has stood highest in the eyes of mankind when it has been identified with some bold and imagina-

tive step forward in history—democracy in the early days of our Republic, the Marshall plan, aid to the peoples of underdeveloped countries.

Recently, the budget of the United States Information Agency was drastically cut. It is not my purpose here to comment on this action. Nevertheless, I believe that admirers of the work of the USIA—of whom I am one—would agree that such actions as the leadership we have taken in putting forward the atoms-for-peace proposal are worth millions of words explaining why this, that, and the other aspect of our infinitely various country is good, or at least not quite so bad as it is represented. The propaganda of deeds—and particularly of deeds of the scope and generosity of which the American people are capable at their best—is immeasurably more effective than the propaganda of words.

The CHAIRMAN. Dr. Charles F. Boss, Jr., executive secretary for United Nations and intergovernmental affairs, board of world peace of the Methodist Church.

STATEMENT OF DR. CHARLES F. BOSS, JR., EXECUTIVE SECRETARY FOR UNITED NATIONS AND INTERGOVERNMENTAL AFFAIRS OF THE BOARD OF WORLD PEACE OF THE METHODIST CHURCH

Mr. Boss. Mr. Chairman and members of the committee, I regret that some of the Methodist members of the committee had to leave early because I think they would have wanted to question me.

I am their friend and I will see that they get this information, and I can answer their questions.

I do want to use a few seconds of my time, Mr. Chairman, to express again my appreciation for the democratic method that is used in the committee hearings by which individuals and organizations may be heard on one side or another before legislation is enacted, and I thank you for permitting me to be heard this morning.

The CHAIRMAN. Excuse my interrupting you, but you say at one place in your printed statement, "for information of the committee (not for printing in the record)."

Mr. Boss. Yes; it is only that part at the bottom that I wish to have omitted.

STATEMENT OF COUNCIL OF BISHOPS

Mr. Chairman, the statement which follows is a quotation from the address of the council of bishops to the general conference in Minneapolis, April 26, 1956. The statement was signed by all the bishops of the Methodist Church. May I read the statement:

Before peace becomes a reality a new morality must become the standard by which the acts of nations are judged; a common language must be spoken which not only contains the same words such as "freedom," "democracy" and "liberation," but which gives these words the same meaning regardless of who uses them. The United Nations and its agencies must be understood and supported not as instruments of propaganda for one point of view, but as the media through which, by conference, differences may be settled without resort to arms. Ten years of achievement have established the importance of the United Nations as a world organization through which peace and well-being on the international level can be aided. The church, seeing its value, has strengthened the public support of the United Nations through interpreting its objectives, cooperating in its projects and endorsing its moral and ethical positions.

Disarmament must be considered as a multilateral project of primary importance for the guaranty of peace. The supply of arms for their bargaining power and the competitive rush to provide military equipment in anticipation of armed conflict present serious obstacles in the way of world peace. Efforts to secure a realistic method for the reduction of armaments by the major nations is a necessary safeguard against a third world war.

Now, I should like to pass over to page 2 and take the section at the top of the page:

> The horror of war in an age of nuclear power should increase the efforts to guarantee the use of atomic energy for nonmilitary activities. To this end we commend our Government for its atoms-for-peace program and the nations which have signed bilateral agreements with the United States to participate in this project. We approve the formulation of an international statute which would create an international agency under the United Nations to administer the atoms-for-peace program. We call attention to the fact that atomic production for industrial purposes increases and with it the urgent needs of more effective safeguards against its military uses.
>
> The economic burden of war must be seen as civilization's ultimate executioner. If, in World War II, the accumulated wealth of four centuries was shot away, what will be the economic consequences of a possible third world war? Leadership must be tested not by the power it commands but by the moral courage it expresses. Doors must be opened for understanding which can come only by fellowship. While working to avoid the dangers of imminent war, we must lay the foundations which insure the permanent structure of a world at peace.

I have finished the quotation of the bishops. I am now speaking for the Board of World Peace.

BENEFITS OF STATUTE

The proposed "statute" now under consideration fulfills our expectations. It will prove, we believe, an abiding foundation upon which may be erected the next great step in international cooperation for the peaceful use of atomic energy. It will not only provide practical arrangements for the exchange of atomic-energy information (as was done in Geneva so effectively in 1955) but will be conducive to the improvement of our international relations. United States leadership is essential to favorable consideration on the part of all nations. They will look to the United States to provide the initiative and leadership without which the purposes of the statute cannot be accomplished. It will provide a framework within which individual nations continue their research and development, and share their findings. It also provides a framework within which nations may continue bilateral arrangements in the field of atomic energy within the provisions of the statute. It will provide wider scope for all member nations desiring to benefit from and contribute to the common needs for widening knowledge and cooperation in alleviating suffering, and raising the economic levels in areas lacking the benefits of adequate sources of fuel and power. The statute will supply international law, as well as channels for universal access to new and unprecedented atomic discoveries and their applications.

CONTRIBUTIONS WHICH PEACEFUL USES OF ATOMIC ENERGY CAN MAKE

A question came up, Mr. Chairman, and I would like to make just this brief insert in the record. The fact that we have the atomic energy in the forms we have had it required the contribution from the scientists of 17 different nations, and those did include Russia, Germany, Denmark, France, Japan, and a number of others. I need not name them all here. It came as an international contribution and we with our ingenuity perfected it first for war. I think we want now to make a different kind of contribution to the world, and can do it.

The ratification of the statute by the United States and other nations

will inevitably impress the world with the possibilities of atomic energy as fuel for power, aid in disease diagnosis and treatment. We have not yet learned the full measure of the contributions which peaceful uses of atomic energy can make to agriculture and other areas of human need. The United States, we believe, has a moral imperative to continue its initiative and leadership by ratification of the statute, and in reducing the threat which atomic weapons and guided missiles have posed to the whole world. This gives a new emphasis to a world determined to find the way to peace. It provides a new orientation to our thinking and emotions concerning atomic energy. It can create a new spirit, a new expectancy, while diminishing the morbid fears which have attended the first 12 years following the dropping of atomic bombs on Japan. Use in weapons of war threatens the existence of man, makes unintelligible historic comparisons between victor and vanquished. Consider the spiritual significance of moving forward at this time in the ratification of the statute and expanding our active leadership in the International Agency for the Peaceful Use of Atomic Energy.

Mr. Chairman, I am sure to many of you, as it appears to me, it would seem preposterous if the United States, whose President inspired worldwide acclaim and fresh hope, should itself fail to ratify the statute essential as the membership of the United States will be. We can establish a rallying point for the large number of less-developed nations needing to rise to higher levels of living as a result of the international approach embodied in the statute. Better to shift minds and emotions of people of the world to a new focus—a challenging program based upon a universal approach to the productive and peaceful uses of atomic energy, than to permit them to drag along with daily fears as to what the outcome of atomic discoveries will bring.

RUSSIAN PARTICIPATION

It is somewhat ironic that the nation which for so long has opposed disarmament inspection and controls in the field of atomic energy, should have been the first nation to ratify the statute of the International Atomic Energy Agency. Yet, this may be a move which in the end will prove beneficial.

New discoveries and uses of atomic energy will come. The Soviet Union itself will make arrangements with some states to aid them in the peaceful use of atomic energy. It would seem better if the United States, the Soviet Union, and all nations were more closely related, as they would be in the International Atomic Energy Agency under the statute, where the purposes and scientific progress of nations may be shared and the benefits of new scientific discoveries applied for peaceful purposes of all mankind.

The CHAIRMAN. Thank you.

Mrs. Marion McVitty, executive council, United World Federalists, Inc.

STATEMENT OF MRS. MARION McVITTY, EXECUTIVE COUNCIL, UNITED WORLD FEDERALISTS, INC.

Mrs. McVITTY. I want to thank you, Mr. Chairman, for this opportunity to present the views of this organization on this Agency.

My name is Mrs. Marion McVitty. I am the United Nations observer and first vice president of the United World Federalists. I want to thank the chairman and members of the committee for this opportunity to make known the views of my organization on the International Atomic Energy Agency.

OBSERVATIONS AS UNITED NATIONS OBSERVER

As a preface to those views, I would like to make one or two observations of my own which I gathered at first hand.

As a United Nations observer, I was privileged to be present when President Eisenhower first proposed this plan in the U. N. General Assembly, in 1953. I was much impressed at the time by the respect and enthusiasm with which this proposal was received by all delegations present, save those of the Soviet bloc.

Again I was privileged to attend almost all of the sessions of the special conference to negotiate the statute of the Atomic Agency. Having studied the statute with considerable care in advance, it seemed to me remarkable that it was unanimously adopted by 80 nations with so few changes of any substance in the draft text. This seemed to me remarkable, because the proposed Governing Board, by its powers and composition, clearly gave advantage to the "donor" nations, particularly those of the Western World, while at the same time the statute elsewhere required a limitation of sovereignty on the part of the "recipient" nations, which was not required of "donor" states. Although these points were discussed by the conference (a majority of whom were potential "recipient" nations), these provisions were retained.

It was my observation that the United States did not yield any ground on any of several provisions protective of United States interests, and that the ability of our representatives to retain these essential features was a remarkable achievement, indicative of the power and respect which the United States commands in world councils.

REASONS FOR FAVORING RATIFICATION OF STATUTE WITHOUT RESERVATION

United World Federalists favor United States ratification of the International Atomic Energy Agency without reservations. It believes the Agency can give necessary atomic aid toward the economic development of nations with the maximum security against diversion of that aid to military purposes, if all the provisions of the statute are accepted and firmly applied. Should reservations be attached by this Government, our organization fears that other governments might seek to attach reservations of their own which might erode the safeguards, disturb the balance of control by the "donor" nations, or otherwise weaken a structure carefully integrated to avoid abuses.

EXPERIENCE IN INTERNATIONAL ATOMIC INSPECTION

It is of particular interest to United World Federalists that this Agency will offer an opportunity to gain experience in international atomic inspection which may later prove valuable in controlling atomic-hydrogen weapons. It is the hope of this organization, also,

that common efforts to achieve for all the benefits of the peaceful uses of atomic energy will increase confidence and improve the international climate for the achievement of universal, enforceable disarmament.

STATUTE'S LIMITATIONS

Federalists feel it important to point out at this stage, however, that we must not overestimate what this Agency can accomplish in the near future.

So long as materials, skilled personnel, and other resources in this field must be devoted primarily to military defense, economic development through peaceful atomic aid is unlikely to attain a very high level.

Although recipient nations must open their plants and facilities to Agency inspectors, nations principally producing atomic energy in great quantity will not be inspected.

The establishment of the Agency will not prevent bilateral atomic aid being given by nations which may not exercise as careful control over its use as would our own Government. We see a danger in that.

The Agency may help to prevent the so-called fourth country problem, but it is not a substitute for disarmament.

Although nations receiving aid from the Agency must agree to limit their sovereignty to the extent that they cannot use this aid to make nuclear weapons, we cannot have secure peace unless all nations accept a limitation on their sovereignty sufficient to enable the United Nations to enforce prohibitions on all weapons of war throughout the world.

The International Atomic Energy Agency deals with only half of the problem. Nevertheless, it is a constructive step, one this country should be proud to have conceived, one that this country should now take firmly in its stride.

The CHAIRMAN. Thank you for your statement. It was short and very much to the point.

Mrs. MCVITTY. Thank you, sir.

The CHAIRMAN. Next will be Mrs. Adelaide N. Baker, the Committee for World Development and World Disarmament.

STATEMENT OF MRS. ADELAIDE N. BAKER, COMMITTEE FOR WORLD DEVELOPMENT AND WORLD DISARMAMENT

Mrs. BAKER. You are giving the ladies next to the last, if not the last, word. I appreciate this.

My name is Mrs. Adelaide N. Baker. In justice to the purpose of my committee, I shall read the parts that make it very evident that we are strongly urging the ratification of this statute.

I am glad to bring to this hearing on the proposed International Atomic Energy Agency the opinion of the Committee for World Development and World Disarmament upon this important subject. Our committee was initiated to study and disseminate information on disarmament in all its aspects—in relation to world economy, world security, the prevention of atomic war, progress toward dynamic peace. We have been in close contact with the United Nations following the briefings, the documents, and the sessions of commissions and agencies dealing with these problems. In cooperation with

nongovernmental organizations, we work at both community and national levels to create an informed public opinion.

STATUTE A HIGH POINT IN UNITED STATES DIPLOMACY

The statute of the International Atomic Energy Agency now awaiting Senate ratification, appears to us a high point in United States diplomacy and a triumph of cooperative statesmanship. Perhaps these sound like extravagant statements. I should like to review the facts behind them. Each step leading to the formation of the statute was carefully prepared and soundly conceived. No airy assertions or wishful thinking or window dressing deck the present instrument resulting from these steps. Yet the dramatic overtones that surround the subject of atomic energy and the spark of enthusiasm lighted by genuine scientific cooperation have awakened a response more generous and expressive than in any other undertaking of the United Nations.

It is true that the first efforts of the United States in 1946 failed to establish international control over the atom. That failure was attributed to the U. S. S. R.'s consistent refusal to join in an effective system of inspection and control.

In 1953 negotiations achieved little in atomic control or disarmament or the control of atomic energy.

WORK OF COMMITTEE FOR WORLD DEVELOPMENT AND WORLD DISARMAMENT

It was during those years that the Committee for World Development and World Disarmament began its work of education to create a climate of opinion in which progress toward these goals could be fostered and supported. We chose to approach the goal of universal disarmament through the positive alternatives which would advance world peace by relieving tensions due to economic insecurity and mutual fear. We insisted from the first that world economic development must be sought jointly with world disarmament, and we constantly explored openings on these related fronts.

PRESIDENT EISENHOWER'S ATOMS-FOR-PEACE PROPOSAL

Therefore, when on December 8, 1953, the President put before the General Assembly of the United Nations "a new avenue to peace," we felt he was indeed speaking for our deepest convictions. He took for the avenue the area of atomic energy, whose effect had been so terrible in war and added such dread to the arms race. By concentrating on the opportunities for man's welfare in this same area he did indeed—

> open up a new channel for peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved * * * if the world is to shake off the inertia imposed by fear, and * * * make a positive progress toward peace.

I am using his very words, which expressed the hopes on which our work was founded.

The thunderous applause with which the President's proposal was received showed that it answered the deeply felt desire of mankind. I have read the comments of the delegates of great and small nations

in the U. N. debate that followed the President's speech. The emotion, enthusiasm, longing that found its way into the printed records of those sessions makes these pages the brightest in U. N. annals.

The one dissenting voice at that time came from the Soviet Union. But we could understand that this negative attitude was chiefly an indication of the reluctance of the Russians to applaud United States initiative and imagination which had outflanked entrenched positions on the disarmament front.

GENEVA CONFERENCE ON PEACEFUL USES OF ATOMIC ENERGY

In the face of worldwide acclaim for the idea of an International Atomic Energy Agency to bring the benefits of this new force to human needs, the attitude of the Soviet Union changed. Its participation in the first International Conference on the Peaceful Uses of Atomic Energy in the summer of 1955 at Geneva was an important step toward cooperation in establishing the Agency.

This Geneva Conference, which has been reviewed by several of those particularly in the scientific field that attended it, brought forth once more the kind of enthusiasm which brightened more pages of the record with unprecedented paeans of praise. Prof. Walter G. Whitman, of the United States, who served as secretary general of the Conference, called it an exciting and rewarding culmination of the tremendous efforts of many people and said that—

> a feeling of relaxation and of real hope for the future pervaded the Palais des Nations where the Conference met. * * * As the representatives * * * left Geneva they knew the Conference had been remarkably successful. But what was ahead? Could the momentum created there for world action be sustained? * * * Geneva was only a beginning. But the quiet forces which were unleashed there can be powerful agents toward achieving a bright future for coming generations.

UNITED NATIONS NEGOTIATIONS

After the Conference, the statesmen took up what the scientists had so ably begun. In the fall of 1956 all potential members of an International Atomic Energy Agency were called together in New York and given an opportunity to express their views on a statute for the Agency. The statute that was drafted represents the views of the less industrialized countries as well as those of more advanced nations.

I had the good fortune to hear the story of that great cooperative undertaking from one of the members of the U. N. Secretariat who was present during those weeks. With a large group of U. N. visitors from my State of Connecticut, I attended a special briefing on the history and prospects of the proposed agency. The young man who spoke to us was one of the fine new international civil servants who render such expert service to the United Nations. Several weeks after the adjournment of the sessions that had ended with the signing of the statute by 80 nations, he was able to re-create for us the glow of enthusiasm touched off by that signal triumph.

But, like Dr. Whitman, he reminded us that the task was only begun. Could the momentum be maintained?

EVALUATING THE STATUTE

The statute now goes back to national governments for ratification. The interchange between national representatives must be imagined

without the stimulating presence of the cooperating delegates. I hope your imaginations are stirred and will, as you report on this matter, transmit with the statute some of the enthusiasm it deserves. For it is the United States Senate who must take the next sep ahead. As one of 80 nations represented in the creation and signing of the statute we share responsibility with 79 others. But we have the unique responsibility of being the initiator of the idea; our President gave it dramatic presentation before the world assembly; our leadership is expressed in this more than in any other action we have taken among the nations. Up to this moment it is a triumphant idea and it is the moment for the Senate to set the seal on the triumph.

I prefer to evaluate our triumph in terms of its potential world service, its challenge in making constructive, not destructive, use of nuclear energy, its demonstration of the power of a dynamic idea to unite nations, divided on many issues, in a great common enterprise for peace. But those who see the dominant issue of the day as the struggle for place and power between the United States and Soviet Russia should take note that the success of the International Atomic Energy Agency is a triumph for United States diplomacy over Russian intransigence—Russia, which blocked out first efforts and sneered at our second proposal, has now rushed to be among the first to ratify the new statute.

SAFEGUARDS OF STATUTE

That statute sets forth the objective: The contribution of atomic energy to peace, health, and prosperity throughout the world. Among the functions of the Agency it outlines the applications of safeguards against the use of atomic energy to further any military purpose. Article XII of the statute spells out those safeguards: to examine facilities set up in the receiving country to deal with fissionable materials, to require health and safety measures, to call for and receive reports, to control the processing and require the return of any excess fissionable materials resulting from processing. Most notable is the assertion of the right to send into the territory of the recipient state or states, inspectors who shall have access at all times to all places and data and to any person who deals with material, equipment, and facilities. Those inspectors may not be impeded or delayed in the exercise of their functions.

INSPECTION AND CONTROL POSSIBILITIES

Agreement on this concept of international control brings a new interpretation of sovereignty and new hope of breaking a vicious circle that has so far shut out hope of disarmament controls. When both the United States and the U. S. S. R. have signed the same statute on inspection and control to insure peaceful use of atomic energy, a step toward the most important agreement of all will have been taken. If it were Russia that were holding aloof there might well be suspicion. If she is in this agreement with other nations who turn to the new Agency for the help they so urgently need, we had best be there too. To stand aside from our own creation is unthinkable. To hold back or wreck its completion would call down on us reproach as dark as the first applause was heartening.

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EFFECT OF FAILURE TO RATIFY STATUTE

The United States must not repeat its role of 1919 when it repudiated the League of Nations which won the hopes of the world that had suffered World War I. If, in 1945, we moved more wisely in our participation in the United Nations, we have risen far above that colossal mistake. If we fail now to ratify this statute which formulates our victory, United States prestige would be seriously damaged and we would lose much of the good will of the 80 nations who have joined with us in signing. But far more than United States prestige is at stake. The creation of the Agency is the high point in United States cooperation for peace.

The CHAIRMAN. Thank you very much, Mrs. Baker.

The last witness is Mr. Wallace J. Campbell, director of the Cooperative League of the United States of America.

STATEMENT OF WALLACE J. CAMPBELL, DIRECTOR, COOPERATIVE LEAGUE OF THE UNITED STATES OF AMERICA

Mr. CAMPBELL. Mr. Chairman, I would be happy, because much of what I have been planning to say has already been said this morning, to submit my statement for the record, and then make a few oral comments if I may. We can close the comments as soon as you have to go, if the time is not already up.

(The prepared statement submitted by Mr. Campbell is as follows:)

STATEMENT OF WALLACE J. CAMPBELL, DIRECTOR, WASHINGTON OFFICE, COOPERATIVE LEAGUE OF THE UNITED STATES OF AMERICA ON ESTABLISHMENT OF AN INTERNATIONAL ATOMIC ENERGY AGENCY

My name is Wallace J. Campbell. I am director of the Washington Office of the Cooperative League of the United States of America.

The interest of the Cooperative League in the subject matter before you grows out of three specific concerns:

1. A belief, stated over and over again in the 40 years of the Cooperative League's history, that our first and principal concern must be for the attainment of a just and durable peace. At our Twentieth Biennial Congress in Chicago last October, the delegates declared: "An all-out war, if allowed to happen today, is likely to destroy all of the institutions we cherish and millions of people of all countries, regardless of the outcome."

2. The Cooperative League has supported the United Nations wholeheartedly ever since its establishment. Our Chicago Congress declared: "We support the United Nations as the only existing agency in the world equipped to work toward a firm and lasting peace, and we urge strengthening the United Nations to make it more effective in enforcing world law."

3. Control and direction of atomic energy for peaceful purposes is a fundamental part of the creation of such an era of peace. In its resolution adopted October 26, 1956, the Cooperative League Congress declared: "Atomic energy is perhaps the greatest of all scientific achievements. This energy belongs to all mankind and cannot, with any moral justification, be said to be the property of any individual, corporation or special interest."

The interest of the American cooperatives in the creation of a specialized agency of the United Nations as a channel for the peaceful use of atomic energy began long before the proposed statute of the International Atomic Energy Agency came up for consideration. As early as 1943, Murray D. Lincoln, president of the Cooperative League of the United States of America, participated as one of the five United States Government delegates in the conference at Hot Springs, laying the groundwork for the formation of the United Nations Food and Agriculture Organization. Jerry Voorhis, executive director of the Cooperative League, was serving in the Congress at the time the basic atomic legislation was enacted, providing for the creation of our own Atomic Energy Commission.

As the Cooperative League's representative, I served as a member of the United States National Commission for UNESCO for a period of 5 years during which UNESCO took the initiative in stimulating the formation of the European Council for Nuclear Research (CERN), a 12-nation cooperative undertaking devoted to research on atomic energy for peacetime purposes. The Council, suggested by United States Commission member Isidore Rabi of Columbia University, is now in operation as a 12-nation organization with headquarters and a large laboratory at Geneva, working exclusively on the application of atomic energy to peaceful pursuits. CERN served as the pioneer project, breaking the ground for the proposal later made by President Eisenhower for the creation of a specialized agency of the U. N. to deal with this problem.

At U. N. headquarters in New York, the Cooperative League, as a member of the International Cooperative Alliance, keeps in constant touch with developments of the Economic and Social Council through the permanent representation of L. E. Woodcock as a permanent consultant to the U. N.

These indications of concern in the international field have been paralleled by an even more intensive interest in the practical application of atomic energy for domestic uses in the field of energy. The National Rural Electric Cooperative Association, a nongovernmental federation of more than 900 electric cooperatives with nearly 4 million members, looks upon the development of atomic energy as a principal source of power for American farmers through their electric cooperatives within the next decade. Already three of the rural electric cooperatives have applications pending with the Atomic Energy Commission for the construction of nuclear reactors in Minnesota, Wisconsin, and Alaska.

Our technical experts tell us that even at today's high costs of producing electricity through nuclear fission, it will be as economical to supply farmers in the high-cost power areas with atomic energy as it is with the sources of power which are now available. If this is true—and we believe it to be—development of atomic energy within a few years should be as economical as hydroelectric power in areas of its greatest abundance.

The several million farmers who are members of farm supply cooperatives have a very great and practical interest in the current and future use of isotopes in agricultural research, particularly in its destruction of plant diseases, eliminating much of the present-day waste in agricultural production.

This lengthy introduction is pertinent because it indicates that our interest is not an academic or cursory matter. Peaceful development of atomic energy is key to both peace and plenty—here at home and in the world at large.

The Cooperative League is greatly encouraged that the official representatives of 81 nations unanimously adopted the statute for the creation of an International Atomic Energy Agency which is now before this committee and the Senate for ratification.

We firmly believe it is in the best interest of the United States to proceed with the creation of the Agency as quickly as possible.

As the members of this committee know, the objectives of the IAEA are "to accelerate and enlarge the contribution of atomic energy to the peace, health and prosperity throughout the world." Its functions include:

(*a*) Stimulation of power production from nuclear reactors through facilitating training and research by the member governments;

(*b*) To provide a channel for obtaining material and services connected with reactor operations which are not available commercially;

(*c*) To undertake research on such universally applicable fields as waste disposal, health and safety criteria, such research to be coupled with methods of applying the safeguards which are developed;

(*d*) To promote the exchange of scientific information among the member States;

(*e*) To create an inspection corps of carefully-selected specialists to administer effective security measures as soon as fissionable materials become available under the authority of the agency;

(*f*) To establish health and safety standards in this new and relatively unexplored field;

(*g*) To acquire properties and installations when and as they become necessary for handling nuclear materials and conducting further atomic research.

Such a catalog of responsibility for the new agency may sound very ambitious. Actually, world progress is at such a rapid rate that occassionally it is enlightening to look backward and see how far we have come in a little less than a decade. I can remember sitting as a representative of the International Cooperative Alliance at a meeting of the General Assembly of the U. N. at the

old Hunter College auditorium in New York, one of the early temporary headquarters of the U. N. At one of those meetings a decade ago, I heard the debate and the final decisions which led to the creation of the World Health Organization. In just a decade WHO has become a world symbol of international cooperation for the protection of health throughout the world. It has already eliminated scourges and diseases through practical application of health information and methods, once known in only a few countries, and now applied in most of the countries of the world through technical assistance made available by WHO.

We in the Cooperative League are very happy to know that the International Atomic Energy Agency will have a close and direct relationship with the United Nations, for it is essential that there be the closest possible cooperation with the existing specialized agencies of the U. N. which are doing such an outstanding job helping the people of the world to meet their day-to-day problems.

Already the World Health Organization has sponsored training courses to provide further knowledge of health protection for atomic energy workers. Physicists and physicians specializing in radiation work in 10 countries attended the first training course. More such courses are being planned as radiation problems become more universal.

The International Labor Organization has already placed great stress on the study of health hazards in the mining of radioactive ores, and a comprehensive report leading to detailed recommendations for the protection of miners is expected this year.

The Food and Agricultural Organization is embarking upon a broad atomic energy program. This will include both the use of radiation in agricultural research and the extension of atomic energy as a source of power to help raise the standards of living and levels of nutrition of peoples in the underdeveloped areas. We have already mentioned the work UNESCO has undertaken in the creation of the European Council for Nuclear Research (CERN).

Prior to the U. N. conference on peaceful uses of atomic energy in Geneva in 1956, there was great concern lest such a conference be destructive of the security which we had built around the development of the atom. It is universally agreed that that conference of atomic scientists and engineers from 73 nations was one of the most constructive international meetings of all time. In the opinion of observers, "it marked the historic and irreversible decision of governments to pool a large part of their hitherto closely guarded knowledge of atomic energy for the common good, and to develop together the beneficial possibilities of the atom." The scientists of the world met with a "total absence of acrimony or political bias which seemed at the time, and still seems, something of a miracle. The intensive intellectual activity, responsibility and objectivity which were characteristic of the meeting were profoundly reassuring and encouraging to a world racked by the nameless terrors of the hydrogen bomb and the guided missile."

We must approach the establishment of the IAEA with the realization that it no shortcut to immediate peace or universal prosperity. It does, however, open up a new channel for peaceful discussion directed toward positive progress to the attainment of peace. We can save by preventing the unnecessary duplication of costly research more than the annual contribution the United States will be called upon to make for its part in the operation of the Agency. The experience of the other specialized agencies of the U. N. should give us heart and encouragement in this field.

In the field of international relations, which is of prime concern to this committee, it is of importance to note that the use of radiation in agriculture and health, and the provision of energy through atomic power, can help many of the nations of the world to help themselves. This can help provide a more stable economic and political situation in the countries which are affected. The increased prosperity will provide new markets and new friendships. The neutral, skeptical and undecided countries among the less-developed nations will find encouragement in America's leadership for greater international cooperation in the atomic field.

In perhaps 1 of the 10 most-quoted speeches of the century, President Eisenhower told the U. N. General Assembly, December 8, 1953, "The United States would seek more than the mere reduction or elimination of atomic materials for military purposes. It is not enough to take this weapon out of the hands of the soldiers. It must be put into the hands of those who will know how to strip its military casing and adapt it to the arts of peace * * *. If the fearful trend of atomic military buildup can be reversed, this greatest of destructive forces can be developed into a great boon for the benefit of all mankind."

To summarize very simply: The statute before you bears the unanimous agreement of representatives of 81 nations. The International Atomic Energy Agency which is to be created follows the practical, highly constructive pattern used in the other specialized agencies of the U. N., in all of which the United States is an active participant. Ratification of the statute now can continue American leadership, not only in the U. N., but also in the field of atomic energy where a great new emphasis on constructive uses can someday—soon, we hope—create the day-to-day confidence which is essential to a lasting and permanent peace.

WORK OF NONGOVERNMENTAL ORGANIZATIONS

Mr. CAMPBELL. First, I would like to say that we feel it is a great privilege for a series of nongovernmental witnesses to come before this committee and express our views on a subject of this great importance.

The CHAIRMAN. I am sorry to say that there has been a quorum call. I will certainly read your statement but there is no one here to continue the hearing.

We have just received word that the quorum call has been withdrawn so we will have the privilege of listening to you.

Mr. CAMPBELL. Thank you very much.

As I started to say, Mr. Chairman, in many of the countries around the world, a nongovernmental organization is looked on as an antigovernmental organization. In the United States it is a distinct privilege for our great national organizations to work closely with the Government and be able to express opinions, both supporting and deviating at places with national policy.

It is extremely interesting that in this particular case all of the organizations that have come before you have been supporting the proposed statute for an International Atomic Energy Agency. It is even more important, I think, to point out that the 81 countries which participated in the drafting of the statute were also in complete agreement.

MEANING OF ATOMIC ENERGY TO UNDEVELOPED COUNTRIES

The Cooperative League has a very practical interest in the matter before you because our cooperatives, which are members of the Cooperative League are also affiliated with the International Cooperative Alliance, which has members in both the developed and the underdeveloped countries.

We realize what atomic energy will mean to these underdeveloped countries because already it has meant so much for us in improved agriculture, in new methods of health protection, as well as in the field of energy. Our rural electric cooperatives have applications pending now with the Atomic Energy Commission, for the erection of three atomic reactors.

One will be in northern Michigan, one in Minnesota, and one in Alaska. These are small reactors which can serve as experimental prototypes for what could be used in many of the underdeveloped countries of the world.

Because they are small reactors, they are adaptable to these places where the only energy that people have now is the energy of their hands and their backs. Just imagine how far we, in the United States, would get if our energy were limited to the kind of energy that people

have in these underdeveloped countries where they have only their hands and their backs and sometimes an ox as power.

The International Atomic Energy Agency will make it possible to supplement what we are doing in technical assistance and through the World Bank and the other agencies by extending to these countries a new and tremendous source of energy for production of the things which are essential to the day-to-day life of the people involved. For that reason we feel that this fits in the pattern of the specialized agencies of the United Nations.

Already the United States has experience in very practical and satisfactory cooperation through the World Health Organization, the Food and Agriculture Organization, the International Bank and the other agencies which are built around the structure of the United Nations. We feel that it is tremendously important that this pattern be extended into the atomic energy field not only as a matter of security but also for the economic development of the underdeveloped countries of the world.

These are some of the reasons, Mr. Chairman, that we feel greatly encouraged that the Senate of the United States is at the point of action on this statute. We feel sure that the Senate will be overwhelming in its support of the proposed Agency, just as the 81 countries which have participated in the creation of the Agency have been unanimous in their submission of the Agency for final adoption.

With these few words, we are happy to indicate our own support of the Agency. We appreciate this opportunity to be able to present the opinion of our organization to this committee.

Thank you very much.

The CHAIRMAN. Thank you very much.

I won't indulge in questioning.

That terminates this hearing, and we are very grateful to all those who appeared to give us helpful information and their points of view.

The meeting stands adjourned.

(Thereupon, the hearing was adjourned at 12:30 p. m.)

(The following letters were submitted for the record:)

CONGRESS OF THE UNITED STATES,
JOINT COMMITTEE ON ATOMIC ENERGY,
May 21, 1957.

Hon. THEODORE FRANCIS GREEN,
Chairman, Senate Committee on Foreign Relations,
Washington, D. C.

DEAR SENATOR GREEN: Attached is a statement for submission to the Senate Committee on Foreign Relations in support of the statute of the International Atomic Energy Agency.

Sincerely yours,

CARL T. DURHAM, *Chairman.*

STATEMENT OF HON. CARL T. DURHAM, CHAIRMAN, JOINT COMMITTEE ON ATOMIC ENERGY, IN SUPPORT OF THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

I appreciate the opportunity of filing a statement with the Committee on Foreign Relations of the United States Senate in support of the statute of the International Atomic Energy Agency.

I have followed, with great interest, the development of the statute from the initial suggestion made by President Eisenhower before the General Assembly of the United Nations on December 8, 1953, through the present hearings by your committee on the ratification of the statute. The Subcommittee on Agreements

for Cooperation of the Joint Committee on Atomic Energy has followed the various drafts of the statute through presentations by Ambassador Morehead Patterson in July of 1955 and by Ambassador James J. Wadsworth in June of 1956. One of our members, Senator Pastore, was the delegate to the 10th General Assembly of the United Nations, who was responsible for presenting the point of view of the United States with respect to the method of arriving at a final statute. Four of our members, Senators Pastore and Bricker, and Congressmen Kilday and Cole, attended the conference as congressional advisers to the United States Representative on the final drafting of the statute held at the United Nations Headquarters in New York from September 20 through October 26 of last year.

I have watched all of these developments with great interest because I am a firm believer in the future of the peaceful uses of atomic energy.

Throughout the entire history of these negotiations, the United States has taken the initiative in seeking to obtain a measure of international control for atomic energy and in seeking to foster international development of the peaceful uses. The statute, which is before you, is the present result of that leadership. We cannot, indeed, we must not, fail that leadership now.

There is tremendous good which can come from the Agency. It can be the start of the international resolution of many of the problems of atomic energy having international scope. Some of these problems directly and immediately affect our operations under bilateral agreements. It will only be out of the agreement of many nations that we can resolve the problems of the international disposal of waste products from the future use of fissionable materials. Furthermore, it can only be through an international agreement or convention that we can reach the most workable arrangement for handling the problems arising from the possible, but improbable, hazards from a safety and liability standpoint, arising out of power reactor operations. It is also through international discussion and agreement that we are most likely to arrive at sound but uniform standards of safety for atomic energy operations throughout the world. All of these items directly affect the ability of our domestic companies to sell atomic energy services abroad.

With the international Agency, however, there is one function which stands out above all others as the prime benefit to flow to the United States from the establishment of the Agency. This is the establishment of an international system of inspection and control for even a small part of the atomic energy development of the world. This inspection and control, so important to seeing that materials supplied to the Agency are not diverted and used for military purposes, may be the key to the future of arms control. I am so struck with the importance of this feature that even though it has been mentioned on numerous occasions before you, I feel compelled to reemphasize this point. Only through the establishment of these controls, for even a small part of the peaceful uses of atomic energy, can we gain the knowledge and experience needed to gage the future of atomic inspection and controls for disarmament purposes.

It is at this point that we help shape our destinies and the destinies of our children. The progress of atomic energy in other nations throughout the world will not be stopped if we fail to approve this statute. This Agency, however, can be the means for guiding the international development of atomic energy under international control. This country has been blessed with the knowledge and ability to use atomic energy defensively for military purposes. We must now turn our efforts to its orderly development for peaceful purposes. Our Government is founded on the principle of faith in the individual. Let us now extend that faith to those in other lands as the occasion warrants under international controls so that this great new blessing to mankind can be used more and more for his betterment.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., May 15, 1957.

Hon. THEODORE F. GREEN,
Chairman, Foreign Relations Committee,
United States Senate, Washington, D. C.

DEAR MR. CHAIRMAN: I send you herewith a statement for incorporation in the hearings by your committee on the statute of the International Atomic Energy Agency.

Sincerely yours,

PAUL J. KILDAY, *Member of Congress.*

STATEMENT OF PAUL J. KILDAY, MEMBER OF CONGRESS FROM TEXAS TO THE COMMITTEE ON FOREIGN RELATIONS OF THE UNITED STATES SENATE

Mr. Chairman, I appreciate the fact that the Senate has sole jurisdiction on the question of ratification of the Statute of the International Atomic Energy Agency. However, in view of the fact that I was designated by the Speaker of the House of Representatives as legislative adviser to the United States delegation to the Conference on the Statute of the International Atomic Energy Agency, I would like to submit this statement for the consideration of the committee.

I was present and attended most of the sessions of the International Conference. In addition, Ambassador James J. Wadsworth, United States delegate to the Conference, arranged for me, and the other legislative advisers, to attend staff meetings of the delegates.

I was impressed by the fact that the proposal made by the President of the United States in 1953 which led to the statute now before your committee roused the applause and hopes of all the people of the world. It appears to me that the President's proposal resulted in greatly increased United States prestige in the search for peace.

Negotiations were carried out with the interests of the United States uppermost in mind, and the statute which resulted is fully consistent with our interests.

During the sessions of the Conference, I was particularly impressed by the interest and enthusiasm of the other nations participating. It was quite evident that all of the nations looked upon the International Atomic Energy Agency as an instrument of great benefit to them. It was evident that the smaller nations were imbued with the idea that the benefits to flow from the Agency would be a major force in the development of their own countries.

At the final session of the Conference, Adm. Lewis L. Strauss, Chairman of the Atomic Energy Commission, read a message from President Eisenhower which, quite properly, mentioned the fact that the International Atomic Energy Agency would not produce the millennium.

A most remarkable part of the final Conference which approved the Agency was the atmosphere of international good will and cooperation which prevailed. If this atmosphere can continue during the future stages of development of the Agency, the world will have taken an important step forward in laying the foundations for real peace.

I believe that the statute adequately protects the interests of the United States. Ratification of the statute will continue the prestige and influence of the United States in the very important field of peaceful uses of atomic energy. On the other hand, failure of ratification would be a severe disappointment to the nations which so enthusiastically accepted the President's proposal and participated in the International Conference.

NATIONAL COUNCIL OF THE CHURCHES OF CHRIST,
GENERAL DEPARTMENT OF UNITED CHURCH WOMEN,
New York, N. Y., May 16, 1957.

Hon. THEODORE FRANCIS GREEN,
United States Senate, Senate Office Building,
Washington, D. C.

DEAR SIR: It is my privilege to transmit to you in behalf of the United Church Women, a general department of the National Council of Churches of Christ in the United States of America, the enclosed statement. It is submitted to you to be placed in the record of the hearings now being conducted by your committee on the question of whether the United States should ratify the statute of the proposed International Atomic Energy Agency.

Respectfully yours,

Mrs. THEODORE O. WEDEL,
Chairman.

STATEMENT ON INTERNATIONAL ATOMIC ENERGY AGENCY BY MRS. THEODORE O. WEDEL, CHAIRMAN, GENERAL DEPARTMENT OF UNITED CHURCH WOMEN, NATIONAL COUNCIL OF CHURCHES OF CHRIST IN THE UNITED STATES OF AMERICA, NEW YORK 10, N. Y.

The General Department of United Church Women of the National Council of Churches of Christ in the United States of America wishes to place the following statement on the record of the current hearings of your committee on the ratifica-

tion of the Statute of the International Atomic Energy Agency by the United States:

The General Department of United Church Women which is made up of 10 million women of the 31 cooperating denominations through 2,200 State and local councils located in the 48 States, Washington, D. C., Hawaii, and Alaska, wishes to urge that the establishment of the International Atomic Energy Agency be speeded by the early ratification of the statute by the United States.

The board of managers of United Church Women, made up of leaders from all States, at its meeting in Chicago, April 30, 1957, unanimously adopted a resolution which in part stated:

"Believing that the establishment of the Agency will protect the interests of the United States and at the same time make available knowledge and materials for more widespread use of atomic energy for peaceful purposes; Be it

"*Resolved*, That the board of managers of United Church Women brings this question to the attention of its constituency by pointing out the need to speed the establishment of the International Atomic Energy Agency by the early ratification of the statute by the United States."

This position taken by United Church Women is in keeping with the National Council of Churches of Christ in the United States of America as expressed in a letter to the United States delegation to the 10th General Assembly of the U. N.:

"It is our hope that the 10th General Assembly will take such steps as will hasten the establishment of the International Atomic Energy Agency envisaged by President Eisenhower in his address of December 1953, to the General Assembly."

The United Church Women have supported the establishment of an agency to promote the positive use of atomic power since 1954. At that time President Eisenhower was commended for his proposal to the United Nations to create an atomic energy agency. It was believed, as stated by the board of managers, that the establishment of the Agency would encourage the use of fissionable materials now devoted to weapons of war for raising standards of living in all countries. Church women were encouraged to study all proposals for the constructive use of atomic energy, to help form public opinion on the subject, and to make their opinions known to representatives of the Government. They have considered it their Christian responsibility to see that the new power of atomic energy be used for the development of human well-being everywhere.

The U. N. observer of the United Church Women has attended sessions of the U. N. at which the atoms-for-peace program was discussed since it was first proposed in 1953. She attended almost all the sessions of the Conference at which the statute was drafted and adopted by the 81 nations, October 23, 1956. Local councils throughout the country have received reports and study material on the atoms-for-peace program for the past 3 years. Their approval of the proposed Agency stems from the understanding of the need for a supervisory body through which technical information and know-how can be exchanged. The system of controls and inspection of fissionable materials which would be achieved through the Agency, as outlined in article 12 of the statute, it is believed will prevent the risk of the diversion of atomic materials from peaceful to miliary application and go far in preventing additional nations from joining the atomic arms race.

The United Church Women have repeatedly urged that the United Nations be used increasingly for assistance to other nations and to build world cooperation and understanding. Atomic power offers new hope to the power-starved countries of the world. According to statements made by the delegates during the U. N. debates, the Agency since first proposed has caught the imagination of the peoples of the world. Since the United States proposed the International Atomic Energy Agency, it should now help to bring the Agency into being in order to continue the dynamic leadership the United States has offered to the newer nations and underdeveloped areas of the world in their search for a better life.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN,
Washington, D. C., May 20, 1957.

Senator THEODORE F. GREEN,
Senate Committee on Foreign Relations,
United States Senate, Washington, D. C.

DEAR SENATOR GREEN: The international relations committee of the AAUW had its annual program planning meeting here in Washington last weekend. The

relationship of the United States with other countries in many aspects was under discussion.

Particular attention and consideration was given to the question of ratification by the United States of the statute enabling an International Atomic Energy Agency by the committee which includes in its membership:

Mrs. Walter H. Bennett, 8 Beech Hills, Tuscaloosa, Ala.
Mrs. Arthur L. Brandon, 2108 Copley Avenue, Ann Arbor, Mich.
Dr. Meribeth E. Cameron, Mount Holyoke College, South Hadley, Mass.
Dr. Gwendolen M. Carter, Smith College, Northampton, Mass.
Miss Dorothy B. Robins, Foreign Policy Association, New York, N. Y.
Mrs. Ivar Spector, 8012 20th Street, NE., Seattle, Wash.

Because of your courtesies in the past in connection with our study program in the field of international relations, we feel that you will be interested in the conclusions of this committee and in the fact that "cooperation with other countries for the use of atomic energy toward peaceful purposes" is a principle which we support in our national legislative program.

We would like to ask that you include the accompanying statement into the record of the hearings on the Interntaional Atomic Energy Agency which are now in progress.

Sincerely,

ALISON G. BELL, *Legislative Associate.*

STATEMENT ON THE INTERNATIONAL ATOMIC ENERGY AGENCY SUBMITTED FOR THE RECORD TO THE SENATE COMMITTEE ON FOREIGN AFFAIRS

The American Association of University Women is an organization of over 140,000 women college graduates, organized into 1,366 branches in the 48 States, the District of Columbia, Hawaii, Alaska, and Guam. One of the association's major activities is to foster study programs which are pursued by branches and individual members in fields such as international relations; a complementary activity is to give expression to the conclusions of such study groups in a legislative program.

At the most recent biennial convention of the association, held in 1955 in Los Angeles, the following principle of action was adopted as a part of AAUW's legislative program:

"Support of a constructive foreign policy * * * designed to develop conditions favorable to democracy, economic well-being, security, and peace throughout the world, through such measures as * * * cooperation with other countries for the use of atomic energy toward peaceful purposes."

The association's committees on international relations and legislative program have studied the statute for the International Atomic Energy Agency as well as the arguments for and against United States ratification of the statute. It is our considered opinion that the proposed international Agency will truly "develop conditions favorable to democracy, economic well-being, security and peace throughout the world." It is therefore our recommendation and our hope that the Senate at its present session will authorize the President to ratify the statute.

We are impressed by the potential opportunity of the new Agency to channel and control the development of nuclear power in such a way as to result in maximum benefit and minimum danger to men of all nations. We are keenly appreciative of the dangers in the competitive development of atomic energy by an increasing number of nations if no such international clearinghouse—supervisory agency—distributor comes into being. We are convinced that the mutual self-interest of the major nuclear powers will guarantee the integrity of the new Agency and assure its operation free from sabotage. Finally, we are hopeful that experience gained through international supervision of atomic energy applied to peaceful uses will be convertible to international supervision of atomic energy in its military applications.

As observers of the reputation of United States foreign policy abroad we are conscious that an American retreat from the International Atomic Energy Agency will have disastrous effects both for the Agency and for the good name of United States foreign policy everywhere. The Agency's "made in America" label is visible in most of the world outside the United States; the Agency is itself the tangible fruit of the President's 1953 address to the U. N. General

Assembly on the peaceful uses of atomic energy. For the United States at this time to disown IAEA or to enter it grudgingly and with reservations will invite the taunt of "hypocrite" from more than the Soviet world.

Few courses of action for nations or for individuals are completely without risk, but failure to act may on occasion be more dangerous than action. In our opinion, the calculated risks for the United States involved in joining the International Atomic Energy Agency are far less than those to be incurred by rejecting IAEA or by postponing decision.

On behalf of the American Association of University Women, therefore, we strongly urge the United States Senate to authorize ratification of the statute for the International Atomic Energy Agency.

Dr. MERIBETH E. CAMERON,
Chairman, International Relations Committee.
ISABEL H. KIDENEY,
Mrs. James W. Kideney,
Chairman, Legislative Program Committee.

Mr. C. C. O'DAY,
Clerk, Committee on Foreign Relations,
United States Senate, Washington, D. C.

DEAR MR. O'DAY: Thank you for your courteous telegram of May 16, 1957, which reads as follows:

"Robert Kemp, care of Robert I. Dennison, Munsey Building, Washington, D. C.: Reference your request to testify on Statute of International Atomic Energy Agency, our schedule of witnesses already listed to testify Monday, May 20, does not permit including you among those appearing that day. In the event future public hearing is held your name will, of course, be listed. If you desire to file written statement committee will be glad to consider it for printed record of hearing.

C. C. O'DAY,
Clerk, Committee on Foreign Relations,
United States Senate."

My initial approach to you was as a long-time expert on the subject of fuelless power production and use. By fuelless power, I meany any form or heat or power production that does not depend upon the burning of carbon fuels, or consuming any atomic fuels such as are needed for the making of atomic heat or power. The burning of the gas, hydrogen, in oxygen to make steam (or water) is an ideal source of mechanical energy and heat. But, more about this later, especially as it pertains to the portable powering of all kinds of vehicles, everywhere.

In the meantime, by way of qualifying myself further, as a prospective witness at your hearing, or as one whose thoughts are worthy of being duly printed in your Foreign Relations Committee record, kindly let me state, that by reason of my "Structural Elements" United States patent issued on November 14, 1922, I am the technical father of the fibrous reinforced heat-hardened plastic vehicle (land, water, or aircraft vehicle), such as the plywood or the fiberglass-plastic boat, airplane and automobile, also flat and corrugated fiberglass-plastic sheet and molded plywood sheet, and I was the first inventor ever to illustrate and describe in any patent, waterproof plywood, the layers of which were bonded with any form of heat-hardened resin—and today, no aircraft is flying anywhere but what has some of my own inventions as parts of its construction.

Having been active in aircraft engineering and development for the better part of the past 50 years, I am naturally a keen student of all kinds of aircraft and other vehicular powerplants. This includes my own list of over 300 ways of obtaining fuelless power in one way or another, such as winds, waves, tides, earth heats, waterfalls, buoyancy, pneumatic and hydraulic pressure, volume or temperataure differences, etc. Sun power and heat pumps combined form an excellent way of avoiding the wasteful burning of fuels, which at their present prodigiously increasing rate of consumption by burning will soon leave our descendants void of petroleum and either hard or soft coal.

Of the 30 human essentials we all have to have as we live together in this higher latitude climate of the north temperate zone; at least 22 of these may always be thought of strictly in terms of kilowatts, or horsepower of energy, or of British thermal units of heat.

Having been instrumental, some years ago, in technically proving the utter impossibility of any large-scale future human warfare on this globe, lest this highly compressed liquid earth destroy itself by suddenly (and without warning)

losing its rotational balance, and thus fly apart; since 1950 all things and persons military, have seemed utterly lunatic to me. We dare not use any blockbuster type of bombs, for they start volcanic eruptions (as discovered by the Italian people after the World War II bombing of Salerno Beach, in Italy), that in turn cause earthquakes, which then, in turn, knock off-center the 4,300-mile-diameter iron ball normally in the center of our planet, with consequent recurrent earthquakes, and recurrent volcanic action, resulting therefrom (this being the "Kemp effect," which I discovered at the time of the second Bikini bomb explosion), all of which makes very possible the self-destruction of our revolving world, due to war, without any future warning, and all without the use of either atomic or hydrogen bombs (themselves, of far greater power than the largest blockbuster-type bomb ever used during the Salerno Beach invasion).

In 1931, I visited Moscow in the U. S. S. R., and came away from there realizing that they were in entire control of this complete earth, due to their heavy ownership of all forms of human property everywhere, and that practically everything of large scope that happened politically in these United States, was initially motivated from the Kremlin, whether it was good, bad, or indifferent. Their various fixed and movable property holdings on North America, I could see, were then (in 1931) so huge, that it was obvious to me, they put Franklin Delano Roosevelt in the United States Presidency, if only to have him irritate the Japanese people into a war with the United States, to the eventual subjugation and then the freeing of the Japanese people, in retaliative return for the trouncing the Japs gave the Russians in the early part of the 20th century, when I was a boy.

So, that anything that happens in Washington, D. C., today, that is of large moment, or as a matter of national policy, is, at least as I now see it, first started (or initiated) in Moscow, U. S. S. R., and then later carried out here (in Washington, D. C.) by our duly constituted legislatures, executive and judiciary, that is, unless we, ourselves, do strenuously object.

As regards people, Moscow seems to possess some of the finest people I have ever had the pleasure of meeting anywhere. It also contains, without exception some of the most hideous humans now residing on this planet, who are capable of torturing and physically mutilating other human beings in ways too horrible to talk about in open company.

When one is in Moscow, evidences of this fanatical lunacy present themselves all over the city, as they are said to, in Alaska. The reason for this, is the wide alternations of sun energy reception, over the summer and winter seasons, a subject too detailed to be herein discussed at any length. But yet, it should be noted, because (due again to my own researches) it is now well on its way toward eventual correction.

All of this is by way of being a prolog to what I have to explain with reference to the wisdom of the United States Senate authorizing the proposed World Agency for the wider international development of atomic energy for so-called peacetime uses of making electric power and heat.

The Kremlin, in so many of its world decisions, returns again and again to the Marx and Engels Communist Manifesto—or, in other words, the virtual Communist Party bible. What the Manifesto indicates as correct, is so frequently the Kremlin line of approach, to any new problem, especially if it has worldwide scope or implications.

However, unfortunately, the Communist Manifesto is so basically imprecise and inaccurate, any policy decisions founded upon it are so often the very way the human family should never turn, or be turned (by Moscow). The Manifesto, and the Marxian theories generally were not put together with the inventor in mind. Karl Marx was not an inventor. Neither was Nicoli Lenin. Stalin was much more of an inventor, than either of the previous two; yet, because Stalin, like Lenin, was primarily an administrator, rather than an originating (or inventive) genius, he often failed to fully appreciate the inventor (and particularly the independent inventor) in his everyday role of incubating, novel, unique, interesting, labor employing new ideas (inventions and enterprises, that is), the ingenious person whose various inventions, spark, sometimes, literally, thousands of other new inventive concepts, of immense value for those who promote new businesses, and lay the very foundations for countless thousands of new commercial ideas, industries, and efforts.

Moreover, the Marxian-Lenin thoughts embrace the proletariat, also the bourgeois—two types of persons impossible to distinguish (one from the other) in our present social picture. We can recognize the leisure person, the professional military and the two types of human workers, the wealth worker and the service worker. This newer classification comprehends most human beings in our

present, most active human family. We are all simians, that is, namely, monkeylike creatures. As such, we are curious, imitative, and highly mischievous. If we (each of us) send forth compassion, mercy, and love for our fellow man (because we are "monkeylike creatures"), this is precisely what will soon be returning to us; whereas, if we constantly vibrate hate of our fellow man, and send that forth in every direction (and by every means and method), again, all of us humans every place, once more being like the gorillas, apes, and the chimpanzees, gibbons (and the various other monkeys), will begin to receive "hate" from every conceivable direction. Social affairs become extremely "messy" under such a "hate motivated government" (or misgovernment).

At the moment, the world is the victim of three gigantic hoaxes: First, that the peoples of the planet, or some substantial number of them, want war, when they do not at all; that we could wage a war with atomic missiles (that is absolutely unthinkable among sane persons); and third, that the atomic bomb is terrible, whereas peacetime atomic heat and power is beneficial and should be expanded all across this earth. This last is probably the most vicious hoax of all. It has placed the sanest among us at a most hideous disadvantage, as the members of the United States Foreign Relations Committee are beginning to see. The expanded development of atomic heat and power (for so-called peacetime uses) is one of the worst nightmares plaguing humanity right this minute—and it is within the power of the Senate to recognize this fact, and move promptly, to eliminate this nightmare, in a quick, sensible, and thoroughly politically practical manner.

It is generally agreed that atomic or hydrogen bombs will kill us quickly, and that if we ever staged any future war, using such weapons, our planet, earth, would be so promptly and completely poisoned (by atomic radiation), vast numbers of us, and probably all persons on this globe, would suddenly succumb to radiation poisoning, for which the medical profession have now no cure of any kind (kindly see the New York Tribune, p. 1, on May 9, 1957). Nor, is it ever likely that they (the medical researchers and the doctors) will ever find a cure for such an illness, which, like leprosy, is always so completely incurable. Once afflicted, the person poisoned by atomic radiation, is doomed to a slow or a more rapid death, according to the degree of his (or her) poisoning, and whether the radiation is continuing to accumulate inside the individual. Either one way or the other, death by radiation, is a certain fate, and there is nothing any other person can do about it to cause death to come later, rather than sooner. The radiation patient is simply and most surely doomed.

The atomic or hydrogen bomb will kill us quickly. So-called peacetime atomic heat and power (or atomically activated medicines or foods) will kill us just as surely as the bomb will. The only difference is in the time it will take to do it. And, if atomic or hydrogen atomic (as distinguished from the burning of plain hydrogen gas in oxygen) energy for heat and power production, doesn't kill us, it will kill our children after us, and, if it doesn't kill them, it will surely kill their children after them. If any of this fails to happen quite as quickly as some of us look forward to its taking place, we, who think about these gruesome ideas, are now practically all willing to agree, that, in 100 or 150 years from now, our great-grandchildren will be facing atomic-radiation death, in every place they are—almost everywhere on this globe they will then be able to look. The "Grim Reaper," death, will be taking his toll, among these great-grandchildren of ours, not yet born, and they will look back through history and curse our very existence, and our callous and total disregard of the full, certain, and final consequences, of our present-day acts toward the advancement and wider distribution of atomic heat and power producing mechanisms—as well as these many atomic and hydrogen bombs that the thoughtless and careless among us are senselessly urging be exploded year after year, over our homes and heads.

Never before, in all previous human history, have we ever been able to steadily watch these same accumulatively lethal actions of any similar group of technical and scientific human beings so thoroughly determined to finally effect the eventual extinction of absolutely all vegetation, animal and human life on this planet earth, including, of course, the future lives of their own, as well as our own descendants, whose ultimate safety and well-being are now so completely in our hands—and for whom these same present-day scientists and engineers have not one single thought, nor care, nor any humane feeling whatsoever.

Indeed, it is well-nigh unthinkable, when one of the obviously brightest, most peace-loving minds among us defends bomb explosions but, because that mind is so thoroughly a legal mind, it says in effect "we demand proof that these atomic and hydrogen bomb explosions are really so deadly." Let it be said, in all earnestness, when the time comes, that the legal mind will accept such legal proof—

the world will then be so completely poisoned atomically, there will be then no cure for the human race. Radiation poisoning and its certain death will be staring everybody, everywhere in the face. There will be no turning back. Our descendants will then, of course, be doomed.

It cannot be denied that photography is now being ruined, by the widespread atomic poisoning, coming to us from the dust-loaded sky. Atomically activated dust is filtering down from above and settling on our pastures and fields and in our reservoirs, brooks and rivers, into our milk and water supplies, so needful for our young, our sick, and our aged. It is exciting increasingly unfavorable comment from our newspapers and magazines, the printing and photoengraving crafts, the advertising fraternity and our fifth largest industry, the paper manufacturers. These are the people that together so heavily rely on black and white and gorgeous colored photography to influence and teach the public, and supply the people their daily news. They are aghast at these Government persons, always thought to be so reliable, but now turned against them, in their continuous effort to preserve their present and future photographic records intact. What will these journalistic and salespeople do without the pictures they so sorely need every hour of each single day. They now, who think, seek an end to atomic heat and power. They want it all "rolled up in mothballs," so to speak, and then completely forgotten. And let it be said that they are the same people (and the crafts) that usually have their way about preserving the things they want and need. They have children and grandchildren, too, that weigh even heavier in the scales of their minds and emotions, than even the pictures—the photographs—they know they must retain for the continued successful operation of their own photo-using businesses.

Each of us mature people breathe close to 6 tons of air each year. In tonnage, this is approximately 10 times the food that we yearly eat. Loaded with lethal gamma rays from atomic bombs and water and rain contamination, these deadly particles of dust enter our lungs, virtually in countless numbers constantly. From our lungs the lethal gamma rays no longer carried by these same dust particles, go, directly into our bloodstreams, there to remain, and build up accumulatively in our separate bodies and poison millions of us, day after day.

Some of our most honored scientists and humane thinkers, who have no inclination whatever, to misguide us in any way, have told us again and again, of the dangers of leukemia (blood cancer) from the atomic gamma-loaded dust, others have warned us again and again of the fish and the fishermen being poisoned from the atomic bomb fallout, while still others remind us of the serious genetic consequences of the greater atomic radiation facing many of us every day, because of the more negligent packaging of atomically fissionable raw materials and these same substances in their various grades of chemical refinement.

When I was a boy, for example, there was but a very few ounces of radium in existence, and an equally few tons of pitchblend above ground. Today there are numerous uranium mines, in the United States, Canada and elsewhere, and correspondingly many uranium refineries, along with several gigantic, manufacturing plants, where this uranium has been, and is steadily, being refined, and where the workers who work in all these various lethal gamma ray working places, have little or no body protection against the deadly rays they are day by day exposed to, oftentimes, entirely without their personal knowledge. Bombs, isotopes and other radioactive products are made and in due course, shipped, to sometimes be stockpiled many hundreds of miles away while they continue to radiate death to all vegetation and animal life near at hand as they sit to await a war, that, in the very nature of human affairs will never be fought. To agree that such daily nonsense and silly weapon waving can ever outbalance the radioactive harm that is continuously piled up upon us, is like agreeing that governments are knowing what they are so harmfully doing to us, while they swear up and down that "all this suspected radioactive gamma-ray poisoning is normal and practically inconsequential."

We see atomic radiated medicines made available for public use, and atomically preserved food fed to apparently wide-eyed and seemingly innocent Congressmen, who the vote more billions for the whole insane atomic fission development program. That is one danger of having everybody, everywhere (as in the U. S. S. R.) on the Government payroll, because to survive on any Government payroll, one has to be politician, diplomat and Government worker, all rolled into one, a tough combination for the upstanding individual who when he sees that which is radically wrong, without any ado, sets immediately about to right it. We all know too, as a matter of fact, there are very few such individuals

in any government, let alone the Marxian Russian Government. They don't like individuals, and they don't hesitate to say so. They feel that the cult of the individual has seen its best days. But, when governments begin to poison all of us wholesale, the time has arrived, certainly, for somebody to talk, and talk straight from the shoulder to those who only do always simply what they are told.

Governments, like churches and schools, are definitely man-made institutions composed of numerous human inventions piled upon each other, sometimes over long time periods, and thereby bound round with much tradition and legal and political prejudices. Marriage, the family, parents, children and the home are natural institutions found all through nature among many lower forms of animal life (other than among people). So, it is well settled, that when natural human institutions come into direct conflict with angry or misguided man-made institutions, the natural institutions, always win. In World War II, Holland was invaded by German soldiers, but night after night, due to their unsocial liberties with the patient Dutch people (and their young women folk) many of the young German soldiers were found dead the next morning (after their misdeeds) under the Dutch bridges and in their numerous canals. It was all done very quietly, but with considerable efficiency, thoroughness, and dispatch.

By the same token, we see many persons in the atomic energy program dying prematurely, while during their unnecessarily shortened lifetime, they have been steadily assuring the rest of us that we, and that our innocent descendants also, will never suffer by their all too obvious military, scientific and engineering atomically poisonous and governmental misdeeds. It is the obviously insane among us, that are compelling the world public to swallow hook, line and sinker this new atomic era so much and so frequently heralded from the housetops. Will it all not go far to entirely discredit those wearing their uniforms, with their ribbons and medals displayed across their breasts, indicating their past ability to slaughter wholesale, those of their own kind (the people)?

Are politicians parents of children first, and then politicians * * * or is it that so many of them are actually the other way around? Older people do not often get so emotionally worked up over the question of mass atomic poisoning, as it has been occurring over the past 10 years, of numerous atomic bomb tests, more tests, and then still more tests, much of which atomic weapons program and the implementation of it, emanates directly without any doubt, from belligerent Moscow, if the truth were known generally to those of us here. Older people without children are inclined to be somewhat indifferent, as are bachelors, who are also, of course, childless. When one of such types of persons heads one of the largest and oldest of our engineering schools, in this land of ours, it is easy to see the harm such an educational person can do, who, stimulated by the excessive military in our Government inaugurates extensive courses in nuclear physics, the aim being to turn out countless numbers of newly educated atomic engineers. Bit by bit, all of this fits in more snugly, to the how-crazy-can-we-get department, of our worldwide human family, here, and elsewhere across our earth.

Practically all atomic reactors develop plenty of heat. Sometimes they explode, due to the heat they build up inside. If it is a breeder reactor we can expect to get out of it, after a few months, more fuel (atomic fuel) than we first put in. This seems like perpetual power with a huge P and, of course, it is, therefore, most attractive, you say, from an economic aspect. The trouble is, however, this huge P stands for poison—poison which leaks and seeps away (often in the cooling water) since all reactors, because their internals are hot, have to be continuously cooled. It is the cooling water that removes the poisons, at the same time it is taking away the reactor heat. There isn't much that can be done about it, because the materials insulating atomic heat aind power reactions, eventually break down due, to the terrific radioactive electronic bombardment that is continuously seeking to disintegrate these very same materials composing the surrounding walls enclosing the heat-developing reactor compartments. It is just as if the electrical insulation, would be continuously disintegrating off from our electrical house wiring. How long could we keep on using electricity under such hazardous conditions? Not long, you will say. In saying this, you are quite correct.

Then, the disposal of the wastes coming from an atomic reactor? How are these to be gotten rid of periodically, and in an acceptable manner? This problem has plagued the Atomic Energy Commission from its beginning. At different times they have thought, that they had this atomic garbage and its successful disposal problem solved. But there is no solution yet in sight, and many of us

who have given it much thought, are firmly convinced that like any successful insulation of the atomic heat and energy producing process, any successful means or method of garbage disposal is entirely out of the question. In other words, the future will never offer a thoroughly safe and perpetually nonpoisonous way out of this most serious technical dilemma. There is no reason why it should, for these atomic wastes disintegrate their own package containing them, just as the atomic reactor, itself, disintegrates its own surrounding walls, eventually.

Atomic heat and power, is like satisfactory and safe space travel, from the earth to the moon and back again * * * so full of minor hazards of one kind and another * * * these obstacles are all assembled, they make the entire problem practically beyond all solution. To endeavor to keep on trying to solve it, is to ignore countless other safer, better, simpler and more workable ways of solving the overall heating and power generating problem. Perpetual power is appearing in possible wave motors, tide mills, windmills, waterfalls, and the like * * * so why continue to work on a power and heat process and its attendant apparatus, so full of hazards to all of us, particularly those of us that have offspring who will have to suffer seriously for our present everyday atomic mistakes. To those in this parental (and grand-parental) position, there is only one answer * * * let atomic fission (and atomic heat and energy production) entirely alone * * * except to do everything to hedge it in * * * and finally (and as quickly as possible) place it in the discard, so far as any expansion of its development is anywhere involved. In other words, give atomic energy "the silent treatment" * * * hustle it out and away from the human family just as fast as possible * * * lose no time, for it has poisoned all of us, already far beyond our own human safety * * * for who is to say that it hasn't? The poisonous gamma ray fallout from this worlds' atomic and hydrogen bombing to date, has already filled our upper atmosphere far too full of various known (well-known) atomic poisons. Commonsense, our desire to survive, our eagerness for the safety of our children and their children coming after them too * * * absolutely dictates that we quickly consign all atomic developments to the technical and scientific scrap heap just as soon as ever we can. I will deal with a few other reasons for doing this, before turning to a newer, and better program to offer which will give us far more and better and abundant heat and power * * * without certain atomic death * * * perhaps to ourselves, and certainly in the future, to those we love so dearly.

Some months ago, I sat in on a hearing between the Atomic Energy Commission and the United States Department of Agriculture. It was held in the old Supreme Court room, between the United States Senate and the House of Representatives. Senator Bricker, I remember, was there, in personal attendance. One question that came up during this meeting was * * * What percentage of gamma ray falling on grass and other forage vegetation, was taken up by the green stuff, before the cows and the other animals ate it? The answer was, * * * over 50 percent.

When this meeting in the Capitol Building was over, one of the scientists, who had flown into Washington from the Pacific coast, and was returning, by air, that same afternoon, came up to me and pleaded, almost with tears in his eyes, * * * Wasn't there something that could be done to bring these political people in Washington (particularly in Congress and in the Atomic Energy Commission) to a prompt and full realization of the hazards, and certain premature death, to the public at the merciless hands of the atomic fission enthusiasts. This young man was a father too. He knew only too well what his children would have to cope with, if atomic bombing, and atomic heat and power were permitted to continue to develop. I told him that we, here in the East, were doing all we could to get the newspapers, the magazines and the other allied arts and crafts, on our side, and against future atomic heat and power expansion * * * also that we had been making good headway, with the Saturday Evening Post, the Wall Street Journal, the New York Tribune, the Atlantic Monthly, and several others. It was after this hearing, quite some months later, that I visited the home of the Reader's Digest (up near Pleasantville, in Westchester County, New York State and not far from White Plains, N. Y.). Mr. and Mrs. Wallace (owners of this publication) were both away. The organization of about 3,000 persons was under the entire direction of one, Gordan Davies.

After talking with Mr. Davies and one of his editors, Mr. Finian, for a while, Mr. Davies, very frankly, declared and the whole Reader's Digest organization

as diametrically opposed to all atomic fission (for heat, power, or anything else) future expansion. Mr. Davies, expressed himself, and their mentally keen group of people, as willing and more than glad to help in the development of solar heat for the future production of needed heat and power. It was a great comfort to leave Pleasantville, with those heartening assurances still ringing in my ears. Reader's Digest publish in several languages and in several countries across the earth. They saw the future, exactly as I saw it * * * death confronting us and our descendants, unless we did something effective to stop atomic bombing and atomic heat and power production (and its expansion), just as quickly and completely as it would be possible to do so.

One way of accomplishing this, is to turn the attention of the world's peoples, away from atomic heat and power (and, of course also away from the atomic and the hydrogen bombs) * * * by calling their attention directly toward, the many other heat and power sources that they can, and will have to learn to use, when our carbon and atomic fuels are no longer here * * * and available for public need.

Out of several talks with various persons, high in the present Eisenhower national administration it became evident that the name of the Atomic Energy Commission should be changed to the Public Energy Commission, as soon, as this, by congressional legislation, can be done. The world public's need and urge for heat and power is prodigious * * * and it is getting more so, right along. This newly designated Public Energy Commission can then be possessed of full Cabinet status, with its Secretary of Public Power in the President's Cabinet. And one of its first new jobs would be the compilation of a full bibliography of its own subject, that is; fuelless heat and power, also heat and power from fuels other than either carbon fuels or atomic fuels, both of these already being so poisonous * * * to the people of this planet.

Let it be noted that gasoline and petroleum products generally are now being used in such huge amounts daily, for driving all kinds of vehicles (land, water and aerial vehicles) that it will be the duty of said newly designated Public Power Commission to explore the use of liquid hydrogen for vehicular operation, along with all other sources of obviously portable noncarbon and nonatomic fuels. There is almost no subject today of greater importance to the people than this. The work of the Public Power Commission should then be expanded, through similar groups elsewhere, on a worldwide basis, so that everyone everywhere will benefit correspondingly.

Respectfully yours,

ROBERT KEMP.

NATIONAL FARMERS UNION,
Washington, D. C. May 16, 1957.

Mr. C. C. O'DAY,
Clerk, Senate Foreign Relations Committee,
Room F–53, United States Capitol, Washington, D. C.

DEAR MR. O'DAY: Enclosed are 30 copies of National Farmers Union's statement on the ratification of the statute of the International Atomic Energy Agency.

We respectfully request that this statement be made a part of the record. Also enclosed is an article entitled "S–90—New Threat to Mankind," which appeared in the National Union Farmer. We would greatly appreciate it if this, too, could be made a part of the record, following our statement.

Sincerely,

REUBEN L. JOHNSON,
Assistant Coordinator of Legislative Services.

STATEMENT OF JAMES G. PATTON, PRESIDENT, NATIONAL FARMERS UNION, CONCERNING THE STATUTE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY

Mr. Chairman and members of the committee, National Farmers Union supports United States ratification of the statute of the International Atomic Energy Agency. This Agency is a forward step in the sharing of information, technical skills, radioactive materials, and nuclear fuels for peaceful atomic-energy projects. It should be a forward step also in the development of greater understanding between those nations whose interest is genuinely in raising standards of living for their citizens through placing the atom at the service of mankind.

National Farmers Union has envisioned higher standards of living for the citizens of this Nation through expanded, peaceful uses of the atom. This objec-

tive can be attained only if agriculture, industry, and other consumers have access to increasing supplies of low-cost electric power and to the other benefits made possible through research.

Our interest in the rapid development of the peaceful uses of atomic energy in this Nation has opened up avenues of interest in the statute, Executive I, adopted by an 81-nation conference on October 26, 1956. Eighty nations are signatories of the statute. The program of National Farmers Union reflects the interest. Delegates to our most recent convention adopted a resolution on the matter of international uses of atomic energy as follows:

"ATOMIC POWER FOR ALL TO SHARE

"We urge exchange of nonmilitary atomic-power materials, equipment, and information among nations for the purpose of improving standards of living, developing human and natural resources, and encouraging more rapid scientific and technological progress."

For more than a decade there has been recognition of the need for some form of international agency to develop the atom for the welfare of mankind. This Nation, the United Kingdom, and Canada first recognized this need on November 15, 1945, in a joint declaration. This Nation, immediately began work for the establishment of an international agency, the function of which would be the acceleration and enlargement of atomic energy to promote peace, health, and rising living standards throughout the world.

Under the leadership of President Truman, Bernard Baruch presented this proposal to an Atomic Energy Commission formed by the United Nations. The beginning efforts of President Truman are highly significant even though 2 years of negotiation ended in a deadlock due to rejection of the United States proposal by the Soviet Union.

Recognizing the need for an international agency to develop the peaceful potential of atomic energy, President Eisenhower proposed, before the General Assembly of the United Nations on December 8, 1953, a world organization to promote the peaceful uses of nuclear energy. With the history of President Truman's effort to establish such an Agency fresh in the memory of leaders of nations aspiring for the better life for their citizens, the Eisenhower proposal received an almost unanimous favorable response from all parts of the world. This favorable response to the Eisenhower proposal is doubtless due credit for ratification by the Soviet Union of the statute on April 8, 1957.

As mentioned above, 80 nations are signatories to the statute. Ratification has been completed by Switzerland, April 5, 1957; Guatemala, May 20, 1957; Soviet Union, April 8, 1957; Byelorussia, April 8, 1957; Austria, May 12, 1957.

The statute will come into force when 18 nations have ratified it, as we understand its provisions, provided 3 of the following 5 nations ratify the statute: United States, United Kingdom, France, Canada, and Soviet Union.

Under provisions of the statute, the first general conference will be held as soon as possible after it has been ratified in accordance with the above requirements. According to information received from the executive branch through the State Department, United States ratification prior to June 19 would make possible the convening of the first general conference on August 19, 1957, the date the preparatory commission has set as a goal. Ratification by the United States is desired before June 19 because selection of nonelected members of the Board of Governors under provisions of the statute will be made 60 days before the general conference.

National Farmers Union supports the early ratification of the statute by the Senate and strongly urges that full hearings be given the statute as soon as feasible to make possible action prior to June 19, 1957.

Ratification by the United States becomes greatly significant in light of the fact that the Agency has had support from both Democratic and Republican administrations and because of President Eisenhower's speech on December 8, 1953, to the United Nations General Assembly. On two different occasions, in fact, the United States has given rise to negotiations concerning the International Agency on Atomic Energy. This history of our expression of interest in promoting higher standards of living throughout the world through spreading the benefits of the atom would make our failure to ratify the statute, Executive I, a calamity in the furtherance of our foreign policy.

National Farmers Union agrees with the President's statement to the United Nations General Assembly when he referred to what may perhaps be the greatest advantage of the new Agency. He said that it would "open up a new channel for

peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved * * * if the world is to shake off the inertia imposed by fear, and is to make positive progress toward peace."

We have discussed in previous testimony before the Foreign Relations Committee the fear of the small, developing nations of economic domination by nations giving aid bilaterally. Many of these nations that will not accept our requirements for insuring peaceful uses of nuclear energy will give such commitments within the framework of an international organization in which they are participants. These are the nations, also, which have the most to gain from participation in such an agency and whose industrial, political, and economic development and growth is in our long-range interest as a leader of the free and democratic world.

Development of international machinery to channel military stockpiled nuclear material into peaceful uses and the inspection procedure needed to follow up and insure such usage will be valuable as a guide to the development of international safeguarded disarmament agreements.

Possibly the conservation of manpower and nuclear materials is justification for the Agency. An internationally coordinated program such as the statute would establish, would prevent unnecessary duplication of research. Provisions would be made also for coordinated research efforts between member nations. In this connection, we approve of the voluntary approach to sharing information. No nation is obliged to furnish to the International Agency information which it considers as being contrary to its interests. Pooling of information concerning peaceful usage of atomic energy will for the most part be shared among the member nations. This sharing of knowledge should prove of great value to participating nations.

Bilateral agreements between the United States and 40 other countries would not be affected under the International Agency since the Atomic Energy Act of 1954 contemplates both the bilateral and multilateral approaches to international cooperation. It is reasonable to believe, however, that should the Agency function in the manner visualized by the 80 signatory nations, increasingly greater use would be made of the multilateral approach. National Farmers Union supports both the multilateral and bilateral programs of the United States but if the circumstances warrant increasing dependence on the International Agency, we urge that greater use be made of it.

In way of summary, Mr. Chairman, we should like to state for the record some of the advantages that the United States will likely have marked up on the credit side of its international policy ledger through ratification of the statute, Executive I.

1. We will further as well as strengthen the friendship of democratic countries and also gain the confidence and respect of neutralist countries, resulting in strengthening their free and democratic institutions.

2. We will succeed in maintaining the early lead of the United States in the creation of an international agency resulting from President Truman's proposal for an international atomic development authority. The maintenance of this leadership is an important asset as the guidelines are developed to encourage atomic development in the best interests of the free and democratic world.

3. As peoples of the world reap the economic benefits through industrial growth and rising standards of living, the good will thus generated will more than repay—both in moral and economic values—the efforts of the United States toward establishment of the international agency.

4. Broadening the base for peaceful uses of atomic energy means greater use of fissionable materials for peaceful purposes, channeling such materials away from military uses throughout the world.

5. Safeguards developed and tested by the agency will help demonstrate the practicability of similar safeguards as applied to disarmament proposals.

S-90—New Threat to Mankind

THE BYPRODUCTS OF ATOMIC-ENERGY FISSION—BOTH IN WAR AND PEACE—CAN POISON HUMAN RACE

(By Roscoe Fleming)

East Indian atomic scientists, directed by Premier Nehru to study the possible health effects of radioactive energy on mankind, have come up with a most portentous and disturbing report.

They say that increasing use of atomic explosions—either in peace or war—may push the radioactive content of the atmosphere, sea, and soil beyond the danger point within 10 years; and they implore the human race to least to pause and look around.

Their conclusions seem to uphold the stand taken by Adlai Stevenson and a large majority of American atomic and biological scientists in favor of stopping of all atomic-weapons tests, until mankind can assess the dangers involved.

But they go further than that: All reactors and powerplants based on the fission principle—which means all of them so far built or planned—are also sources of radioactive waste which poisons their environment to some degree. So the world may well pause for a second look at peacetime, atomic-energy programs, also.

They reported their findings to Mr. Nehru last summer, and the Indian Government has published the results of their studies. So far as is known, the National Union Farmer is the first popular American publication to report these results, though the results, may be known, of course, to American scientists in the field.

S–90 THREATENS ALL

The dreaded radioactive poison, strontium 90, was unknown on earth until man created it in the first atomic blast. Adlai Stevension said only a tablespoon of it equally distributed would represent the maximum amount that the whole human race could tolerate. It enters largely, but not wholly, into the Indians' calculations.

They follow Dr. W. F. Libby of the United States Atomic Energy Commission in describing bomb fallout as divided into two general categories: either local and temporary, or high-level, worldwide and lasting.

Small bombs produce largely the former. The big thermonuclear bombs, usually called hydrogen bombs, throw large quantities of radioactive material high into the atmosphere which may circle the globe for a decade, gradually sifting down.

The Indians say that at least two American bombs set off in the Pacific—that of March 1954, which destroyed an island and drenched the Japanese fishing boat *Fortunate Dragon* with fallout, thus letting loose the news of the superbombs and that of May 1956—each had a power equivalent to 15 million tons of TNT, or 750 times the power of the original Hiroshima bomb.

The first superbomb set off more explosive force than the human race had loosed in all its history until then. Among its waste products blown into the air was many pounds of strontium–90. They calculate that the standard superbomb, of 20 million tons TNT equivalent, would release 43 pounds of S–90 in its fallout.

RADIATION CUTS LIFE

The Indians say that any exposure to radiation above nature's background level whether of X-rays or the fallout from a bomb-blast, shortens life. The international unit of radiation is the roentgen (r)—the natural or background level absorbed by each human being is about one-tenth roentgen per year. For each extra 100 roentgens absorbed, a human being's life is shortened by about 1 percent.

At the Biblical span of 70 years, this would cut one's life short by about 8 months.

(Dr. H. J. Muller, the Nobel-prize geneticist, says that a family 100 miles downwind from a superbomb blast, remaining in a well-sealed basement, would nevertheless still absorb about 100 roentgens of radiation each in only the first week of exposure.)

The original weekly safe or permissible dose of exposure to artificial radiation for a human being was originally set at three-tenths of 1 percent of roentgen a week, or about 15 roentgens per year. The Indian scientists point out that this would mean 600 roentgens in 40 years—and 600 roentgens, absorbed all at once—would mean death. The atomic energy industry, as if in answer, has now cut the "permissible dose" of its workers by two-thirds, or to five roentgens a year.

Exposure would be incurred downwind from an atomic blast in immediate or local fallout.

S–90 ATTACKS BONES

The other type of fallout occurs worldwide, and S–90 sifts down for a decade or more, after each superbomb blast contaminates the higher atmosphere and gets into the planetary air-circulation.

Strontium in nature is a harmless element, with an atomic weight of 88. It is chemically allied to calcium. When it is manufactured by the splitting apart of

heavier elements in atomic fission, and two electrons are added—so making it S–90—then look out.

The resulting unbalance causes it to spit fierce radiation. This radiation is only half-exhausted in 28 years, so no matter how long it remains aloft, much S–90 is still deadly when it comes to earth.

S–90 gets on and into plants, and into the animals that eat the plants. It takes calcium's place in some degree, and calcium settles in the bones. So S–90 settles in the bones, too. There are probably at least a few atoms of it by now in the bones of every human being on earth, even though it didn't exist until 1945.

Radiation destroys living cells, and S–90 goes to work on the cells of one's bone-marrow, where the body's blood is made. Result: leukemia, or blood cancer.

The Indian scientists quote Dr. W. F. Libby of the United States Atomic Energy Commission as saying that so far the probable absorption of S–90 is only about one thousandth part of the permissible amount for the average human being, and that little danger exists at the present level of big-bomb testing.

ATOMIC FUTURE IN BALANCE

The East Indians do not so much dispute this, as to say it is uncertain. Under certain circumstances, they say, some people may have already absorbed one-fourth the bearable amount; and, further, they point out Dr. Libby's calculations are based on "the present level."

But, they say, there is no guaranty that the present level of testing won't increase.

(Informed guesses are that the United States has by now set off 21 thermonuclear or big bombs, usually called H-bombs; that the Russians have set off 4; and the British have announced their intention of starting H-bomb tests in 1957. Further, other countries are thinking of atomic-bomb programs.)

Peacetime development of atomic energy will also carry a hazard. S–90 is a product of atomic fission, not of fusion, the newer or H-bomb process. All power-plants and reactors so far designed or planned used the fission process.

The East Indians calculate that if all the world's present electric power were generated in fission-plants using uranium, such plants would make 8 tons of S–90 yearly in their wastes. Every precaution will be taken to confine this, yet production of S–90 on such a scale cannot be regarded lightly.

The size of the danger in the future? As we all know, the atomic energy planners confidently predict that much of the world's energy will be made atomically—and that by 1980, or by the year 2,000 at the latest, the production from atomic energy alone will approach the present amount of energy produced in all the world.

NATIONAL COUNCIL OF THE CHURCHES OF CHRIST,
DIVISION OF CHRISTIAN LIFE AND WORK,
New York, N. Y., May 17, 1957.

Hon. THEODORE FRANCIS GREEN,
Chairman, Committee on Foreign Relations,
Senate Office Building, Washington, D. C.

DEAR SENATOR GREEN: I am writing to request that you place in the record of your committee in the course of current hearings, if possible, this letter expressing favorable concern for the ratification of the statute of the International Atomic Energy Agency. This concern is shared among churches of this country which work through the National Council of Churches.

The national council is composed of 30 constituent communions, Protestant and Orthodox, which have a constituency of more than 36 million members. While we do not presume to speak for every individual member, the views we express are arrived at by responsible representative processes.

The decisions taken by the National Council of Churches on this matter are set forth in the attached memorandum. They reflect close study of the issues involved. There is no room for reasonable doubt that failure on the part of the Senate to consent to the ratification of the statute of the Agency would disastrously undermine American moral authority and prestige throughout the entire world and would thereby be a deadly blow to our national interest and security. The responsible officials of the Government, including our delegation to the United Nations, the President of the United States, the Secretary of State, the Chairman of the Atomic Energy Commission, all strongly urge the acceptance of the statute and we believe it our duty to express in the strongest possible terms our confidence in and support of their judgment on this matter.

We are watching with keen interest and apprehension the process of the hearings and the progress of this statute through Senate action.

Sincerely yours,

ERNEST A. GROSS,
Chairman, Department of International Affairs.

On the matter of an international atomic energy agency, the National Council of Churches has taken the following actions:

In a letter to the United States Delegation to the Ninth General Assembly of the United Nations, the general board of the national council, by official vote on September 15, 1954, declared:

"We support President Eisenhower's proposal for the pooling of fissionable materials in an international agency under the United Nations for peaceful use, even if the Soviet Union does not go along with the program."

In its world order message for October 23, 1955, the general board took official action on June 8, 1955, saying:

"We, therefore, conclude that the advances in nuclear science since the San Francisco Conference make it imperative that our own and other nations find the means of using nuclear energy for peaceful purposes, and that to this end effective use be made of the United Nations."

In keeping with the general policy statements of the National Council of Churches, a letter signed by the appropriate officers was sent to the United States Delegation to the 10th General Assembly of the United Nations which stated:

"We are tremendously heartened by the constructive results achieved by the International Technical Conference on the Peaceful Uses of Atomic Energy held in Geneva during the past summer. It is our hope that the 10th General Assembly will take such steps as will hasten the establishment of the International Atomic Energy Agency, envisaged by President Eisenhower in his address of December 1953, to the General Assembly. To this end full and effective use should be made of the United Nations. It seems clear to us that the proposed International Atomic Energy Agency should be constituted within the framework of the United Nations."

THE AMERICAN LEGION,
Washington 6, D. C., May 20, 1957.

Hon. THEODORE FRANCIS GREEN,
Chairman, Senate Foreign Relations Committee,
The Capitol, Washington, D. C.

DEAR SENATOR GREEN: Referring to the hearings now being held by the Senate Foreign Relations Committee relative to the International Atomic Energy Agency, I would like to state that at the May 1–2, 1957, meeting of the national executive committee, the governing body of the American Legion, resolution No. 41, containing the foreign policy statement of our organization, was adopted.

Section VII of this resolution reads as follows:

"VII. *International Atomic Energy Agency.*—The American Legion is deeply concerned over the proposed United States participation in the International Atomic Energy Agency.

"The statute for this Agency is now pending before the United States Senate for ratification.

"We earnestly urge that action on this tremendously important and highly complicated and technical proposal be deferred until the American people, as well as the Congress, have an opportunity to make a thorough and complete study of all the intricate problems involved, and their ramifications, in order to make a decision that will unquestionably be in the best interest of the United States."

While I am not asking for the privilege of a personal appearance before the Senate Foreign Relations Committee, I respectfully request that the position of the American Legion on the subject of the International Atomic Energy Agency be given consideration by the membres of the committee and this letter incorporated in the record of the hearings thereon.

Thanking you kindly for your consideration and with kindest regards, I am

Very sincerely,

W. C. "DAN" DANIEL.

POST WAR WORLD COUNCIL,
New York, N. Y., May 14, 1957.

Hon. JOHN SPARKMAN,
Senate Office Building, Washington, D. C.

DEAR SENATOR SPARKMAN: This is a rather official letter from me in my capacity as chairman of the Post War World Council. I want most emphatically to endorse resolutions which I understand are now submitted or about to be submitted.

(*a*) In favore of a permanent police force for the United Nations.

(*b*) In favor of a tremendous effort to win a mutual agreement for monitored moratorium on nuclear tests.

(*c*) For the disarmament resolutions which I believe you and Senator Flanders have introduced or will introduce.

I also want earnestly to urge the Foreign Affairs Committee of which you are a member promptly to report in favor of ratification of the Atoms for Peace treaty. Its rejection would, I think, be an enormous calamity for American leadership toward disarmament and peace.

I could argue these questions at length but I suspect your committee and the Senate will have plenty of argumentation. Much of my argument would repeat what we have put in our report of the Arden House conference. The case for Atoms for Peace has been well made by the State Department. I do not believe in adding unnecessarily to the burden of reading imposed on Senators.

I should, therefore, ask if you will, if it is proper, file this letter with the Foreign Affairs Committee as an endorsement of these measures. If you think best, I shall be glad to supplement it or to address it more formally to the Foreign Affairs Committee.

With personal regards, believe me,

Sincerely yours,

NORMAN THOMAS.

PROVIDENCE, R. I., *May 13, 1957.*

Re International Atomic Energy Agency.

HONORABLE MEMBERS OF THE SENATE OF THE CONGRESS OF THE UNITED STATES,
Washington, D. C.

GENTLEMEN: It is with the greatest apprehension that I have read the reports of the pending hearings on the International Atomic Energy Agency.

Let me state my understanding of the facts as I have obtained them from various reports.

In 1953 President Eisenhower made his atoms for peace proposal to the United Nations.

On October 26, 1956, President Eisenhower said in New York City:

"The United States will make available to the International Agency * * * 5,000 kilograms of a nuclear fuel, uranium 235, from the 20,000 kilograms of such material allocated last February by the United States for peaceful uses by friendly nations."

According to one estimate 20,000 kilograms of this material costs roughly $500 million. One-quarter of this amount, which is to be given immediately, would cost $125 million. In addition to this, the President has promised to give an additional 15,000 kilograms during the next 3 years, provided a similar amount is given during that period by all the other nations of the world combined.

Russia was the first nation to ratify the charter of the Agency.

The charter has been submitted by President Eisenhower to the Senate for ratification and hearings are now being held. As it is a treaty, action by the Senate alone is required. The House is not called upon to act.

The question that strikes one at the outset is: From what source does the President derive this power to give away the people's money? The gift to which he proposes to commit the Nation can be paid for only out of taxes levied on the American people. But the power to impose taxes is given by the Constitution to the Congress, which means both the Senate and the House. It is not given to the President and the Senate.

Aside from the disturbing implications of this assumption of power by the President there is the fact that the uranium given by us to this International Agency can be used for the purpose of making atomic bombs. True, it is intended that it shall be used only for peaceful purposes. But once having gotten into the hands of other nations, what effective means can possibly be devised to prevent its use for war purposes?

The Soviet Union and its satellite nations are eligible for membership in the Agency. All of these nations, and even Red China, could be given a part of the uranium that we supply.

Since we would constitute but one out of a possible 80 or 90 nations eligible for initial membership in the Agency, our wishes could readily be overruled.

Various statements have been made as to the number of atomic bombs that could be made out of out initial gift to the Agency. The smallest estimate I have seen is that it would make 100 bombs of the power of the bomb dropped on Nagasaki.

It is all very fine to talk about atoms for peace and our desire to help the other nations of the world. Unfortunately, we are not living in a peaceful world. On the contrary, we are presently engaged in a life-and-death struggle with a nation controlled by an unprincipled group of international gangsters bent upon our destruction.

Anyone having the least familiarity with the facts knows that we are losing the cold war with Russia. Starting with a nation of 200 million people a decade ago, Russia has since steadily increased her influence until today she controls in one way or another about half the world's population. Our own population is but 6 percent of the total.

This increase in Russian power has been due principally to the unbelievable conduct of our foreign affairs, whereby we turned over the control of China to the Communists and suffered 150,000 casualties in a Korean war we were not permitted to win.

And now to cap the climax, the administration proposes to put within the control of our mortal enemies the means of our own destruction.

To quote a great and much-abused American patriot, the late Senator Joseph R. McCarthy:

"Offering to share our atomic wealth is in a class with the Chicago Police Department offering to share its pistols and submachine guns with the Dillinger mob."

I earnestly beg you and your colleagues to oppose the ratification of this treaty.

Respectfully yours,

ROBERT B. DRESSER.

Enclosure:

[The Wall Street Journal, Tuesday, May 14, 1957]

ATOMIC GIVEAWAY

THE GLOBAL AGENCY FOR PEACEFUL NUCLEAR DEVELOPMENT COULD POSE A SERIOUS THREAT TO UNITED STATES SECURITY

By William Henry Chamberlin

There has been far less discussion of the atomic giveaway program involved in United States membership in the International Atomic Energy Agency than the importance of the subject demands.

The alluring slogan, "Atoms for Peace," and the sponsorship of the Agency by the President and other high officials have tended to stifle doubts, or at least the open expression of doubts. But there are some disquieting features about this scheme, which seems better adapted to an age of far-reaching international confidence and good will than to the real world of the cold war and hostile coalitions.

Here are some of these disquieting features which, it is to be hoped, will be thoroughly canvassed during the current hearings and during the Senate debate preceding the vote on whether the United States should enter the Agency.

First, we shall be in the invidious position of a "have" nation subject to the voting control of a majority of "have-nots." The Agency, to which 80 nations have given initial endorsement, is organized on the principle of 1 nation, 1 vote. The United States is expected to contribute to the Agency information, scientific and technical personnel, fissionable material, and money.

Very few of the other member nations will be in a position to contribute any of these things. Yet their votes can control the distribution of our contributions. This might lead to consequences that would startle American public opinion, to say the least.

There is nothing to prevent the Agency, by majority vote, from admitting Red China to all the benefits of have-not membership. Nor is there anything to

prevent part of the 11,000 pounds of enriched uranium, which the United States has already promised to make available to the Agency, from being shipped to the Soviet Union, to Red China, or to any Soviet satellite state.

GROTESQUE POSITION

It is somewhat grotesque that this country simultaneously imposes so many restrictions on exports of strategic material to the Soviet bloc and to Red China and leaves such a large loophole open for the shipment of uranium, surely the most "strategic" material of all.

Second, the difficult if not impossible problem of control is not clearly solved under the terms of establishment of the Agency. The enriched uranium which this Government has already promised to make available is supposed to be for nonmilitary use. But it is scientifically possible to convert uranium of this type into fissionable material for A-bombs.

The only safeguard against this would be a system of continuous close inspection to which Communist nations have been extremely allergic in the past. Nothing less than such inspection would afford any guaranty that the United States was not supplying its enemies with the deadliest kind of munitions.

Third, the sanctions which can be invoked in the event of breach of the agreement seem inadequate. All the Agency can do in the event of violation is to cut off the supply and report the affair to the United Nations. There have been many occasions when it was impossible to get a clear-cut decision from the United Nations. The Agency could do nothing if the nation guilty of violation should seize the material and throw out the Agency's inspectors.

Fourth, the establishment of an International Atomic Agency could set a precedent for other international bodies, dealing with electrical power, steel, wheat, cotton, or almost any fodstuff or raw material under the sun. In any such body the United States would have the same unfavorable position of a "have" among the "have-nots."

What makes United States membership in the International Atomic Energy Agency still less desirable is that there is an entirely safe means of realizing the benefits which are supposed to flow from the Agency. The United States has already concluded almost 40 bilateral agreements with friendly countries looking to cooperation, in atomic research and in the construction of power reactors.

CHANCE TO CHOOSE

The advantages in the bilateral approach are that the United States is in a position to choose which countries may be helped without risk to American national security and to impose safeguards which seem adequate in the judgment of the men charged with responsibility for America's own atomic program. Both these advantages would be forfeited if the United States should enter the International Agency, which maintains complete control over all the fissionable material it receives.

An International Atomic Energy Agency of the type now proposed might well be a logical development in a world where national differences had been reduced to a minimum, where there was no fear that some nation or group of nations might have the design of using the terrific destructive power of nuclear weapons to achieve world domination. This is not the situation at the present time.

It is a very curious sense of relative values that makes the administration throw as many roadblocks as possible in the way of American newspapermen going to Red China and haggle with other powers over what is permissible for export to China and the Soviet bloc, and at the same time support a scheme which could result in the transfer of such a vital nuclear material as uranium to Communist countries. If this is not possible under the constitution of the Agency, it is the obligation of its administration sponsors to explain why it is not possible.

SPEED IN MOSCOW

The suggestion is now being made that the recent Soviet ratification of this plan should hasten its approval by the United States Senate. But it could certainly be argued with equal plausibility that any scheme accepted with such unusual speed in Moscow should receive a long second look in Washington. Just because there has been so little advance discussion of the International Atomic Energy

Agency, every detail of the project should receive a thorough going-over at the hands of independent-minded Senators.

The apparent defects should at least inspire some sweeping reservations, if it is not decided that they warrant the scrapping of the whole project.

INTERNATIONAL UNION, UNITED AUTOMOBILE, AIRCRAFT AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA, UAW,
Washington, D. C., May 17, 1957.

Senator THEODORE FRANCIS GREEN,
Senate Office Building,
Washington, D. C.

DEAR SENATOR GREEN: On behalf of the members of the UAW, I appeal to you to actively support speedy United States ratification of the statute establishing the United Nations Atomic Energy Agency. As you know, this statute was the direct outcome of the recommendations made December 8, 1953, by President Eisenhower in an address to the United Nations Assembly in which he sparked the hopes of the peoples of the world when he said:

"The United States pledges before you—and, therefore before the world—its determination to help solve the fearful atomic dilemma—to devote its entire heart and mind to find the way by which the miraculous inventiveness of man shall not be dedicated by his death but consecrated to his life."

Our union's 1957 convention resolution on atomic energy urged the adoption of President Eisenhower's "Atoms for Peace" proposal. We said that this plan "* * * provides a mechanism for bringing atomic power development to other peoples on the basis of their needs through genuine international cooperation and with full safeguards against extension of the capability of waging nuclear warfare." We made it clear that in our view early ratification would be a profound American contribution to survival and prosperity in this atomic age.

The International Confederation of Free Trade Unions (representing 54 million democratic non-Communist trade unions in 88 countries) has endorsed the proposal for an International Atomic Energy Agency. European free trade unions are in whole-hearted support of Euratom, the European agency for the development of peaceful uses of atomic energy.

We present this brief statement to you in lieu of testimony which we had hoped to present in the course of Senate committee hearings on President Eisenhower's request for Senate ratification of the statute establishing the International Atomic Agency, drafted in a conference of 81 nations, the largest international conference ever held.

In our view, the Nation's good faith and moral leadership in the world are at stake. It is deplorable that the United States, where the atom was first harnessed for man's use, and where the present proposal was first conceived, should now be held back by unreasoning fears. In the meantime, other U. N. member nations, the Soviet Union, Guatemala, Switzerland, Rumania, and Byelorussia, have ratified the statute.

Since the statute becomes operative upon ratification of 18 countries, including 3 of the large powers, it may be that it will be put into effect whether or not we participate. In that event Communist imperialism would be reinforced in its drive to have the first world conference of the new Agency held in Moscow, thereby dramatizing our relinquishment of leadership in the development of peaceful uses of atomic energy.

The International Atomic Energy Agency is far along on the way to being established. Its operation seems certain because it meets needs to deeply and widely felt by men and women everywhere. It seems to us that the United States dare not and must not, through inaction, veto this proposal.

Delay or refusal to ratify the statute would be a diplomatic disaster; we would not only be in the absurd position of trying to run away from the consequences of our own inventions but, in the uncommitted areas of the world we would be portrayed as engaged in a futile attempt to hold back the dawn of a peaceful atomic age, willing only to share atomic energy in the form of bombs and tactical weapons. I should appreciate your making this letter part of the record of your committee's hearings on this vital matter.

Sincerely yours,

VICTOR G. REUTHER, *Assistant to the President.*

THE CATHOLIC ASSOCIATION FOR INTERNATIONAL PEACE,
Washington, D. C., May 17, 1957.

Hon. THEODORE FRANCIS GREEN,
Chairman, Senate Foreign Relations Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR GREEN: If time still permits, I would like to request that the enclosed statement be inserted in the record of testimony on United States ratification of the International Atomic Energy Agency statute.

The statement has been released by the committee on world order of the Catholic Association for International Peace.

With every good wish, I remain,
Sincerely yours,

George G. Higgins,
Very Rev. Msgr. GEORGE G. HIGGINS,
Executive Secretary.

THE INTERNATIONAL ATOMIC ENERGY AGENCY

POLICY STATEMENT BY THE COMMITTEE ON WORLD ORDER

On October 26, 1956, the statute of the International Atomic Energy Agency was open for signature at United Nations headquarters. Within 90 days, it was signed by 81 states, including the United States. On March 21, 1957, President Eisenhower transmitted a certified copy of the statute to the Senate for ratification. Hearings on the question of ratification are scheduled by the Senate Foreign Relations Committee for the early part of May.

The committee on world order of the Catholic Association for International Peace is confident that the Senate will speedily ratify this statute. The International Atomic Energy Agency is the product of long and careful negotiations in which the Government of the United States has played a leading role, and which, indeed, were initiated by the United States in President Eisenhower's atoms-for-peace address to the United States on December 8, 1953.

The objectives of the International Atomic Energy Agency, as set forth in article II of the statute, are these: "* * * * to accelerate and enlarge the contribution of atomic energy to peace, health, and prosperity throughout the world" and to insure, "so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose."

The great necessity for international cooperation in the field of nuclear energy has been stated frequently and clearly by our Holy Father, Pope Pius XII, and was reiterated by His Holiness in a note to the Japanese Government on April 4 of this year. In this note, Pope Pius made an eloquent plea for the proper use of atomic energy. "* * * Scientists of all nations and all beliefs," declared His Holiness, "must feel the grave obligation of pursuing the noble end of mastering these [nuclear] energies for the service of man. Scientific, economic, industrial, and even political organizations should support with all their power efforts aiming toward the use of these energies on a scale adaptable to human needs."

It is significant that, having been represented at the United Nations conference which drafted the statute of the International Atomic Energy Agency, the Vatican was one of the signatories to the statute. This representation gives eloquent testimony of the Holy See's profound interest in the peaceful uses of atomic energy and in the establishment of an international agency to promote this aim.

It is fitting that the United States—which made the original proposal for the International Atomic Energy Agency—should ratify the Agency's statute at the earliest possible date. This step is a logical fulfillment of the 1946 United States Atomic Energy Act which declared it to be the policy of the people of the United States to develop and utilize atomic energy for the improvement of the public welfare and the promotion of world peace. With conventional power resources being steadily depleted in highly industrialized areas, and with the drastic need for power in the underdeveloped areas, it is of grave importance that the nations of the world work together to bring the fruits of this new knowledge and new power to all. The United States, a leader in this field, has its greatest opportunity to date to reaffirm its determination to work in the interests of peace and to share with the world community the blessings which God has so abundantly bestowed upon it.

STATEMENT AND PROPOSED TESTIMONY OF PAUL D. THOMPSON, SR., SEVERN, MD., ON THE PLACE OF THE INTERNATIONAL ATOMIC ENERGY AGENCY IN THE PEOPLES' EFFORT TO BUILD WORLD ORDER BY ENHANCING WORK TO MEET THE NEEDS OF LIFE AND THE NEED FOR THE DEVELOPMENT OF THE RESOURCES OF THE NATIONS

Mr. Chairman, distinguished members of this committee, I understand that it may be impossible to hear any oral testimony from me today due to the lateness of my request. I have been under heavy strain of late. Because of some matters of grave importance that have arisen in connection with my efforts to build a peoples' movement in the world to enhance world order and freedom I hope these remarks on the place of the International Atomic Energy Agency may be inserted in the hearing record where they may aid in clarifying the thinking of millions of people who seek ways to win the battle for the minds of men and secure some safety for our children and a better future for the human race. I believe that one of the very great contributions of these great committees both in the Senate and the House, is the development of inspiration, the exploration of new ground in thought and the clarification in debate in matters which are now vital to our survival at this juncture of the centuries. I will be glad at any time to defend, to amplify, to clarify these findings and to receive your advice in many matters in which you have for greater knowledge and proficiency. I am profoundly grateful to the members of this committee who have individually and collectively encouraged me to develop inventive ideas that may be of some use to us.

In that regard I wish to call to your attention the fact that any contributions I have made to the debate on the Middle East doctrine, have been made possible by the courage and human understanding of a very great member of your committee who now rests to recover his health. On the last day of the last session, in the very evening of that dramatic day, Senator Langer rose to insert in the record some news of a new inspiration to defeat barbarism in the world. If I make some slight contribution I hope this may be credited to Senator Langer and if I make some mistakes, and betray some ineptness, I hope you will credit this to my inexperience and a blunt searching for truth, at a time when truth must be searched for with avidity, if our civilization is to survive.

It is necessary that I establish these general philosophical principles on which the philosophical conflict will be conducted because I have invented a means of securing conditional pledges, and the participation of thousands of common folk without asking for 1 cent for expenses and support. I intend to accelerate this action, which is based on the greatest ideals and institutions of our way of life, to build world order and freedom. I want you to know exactly what is going on. I want the people of the earth to know exactly what is going on.

By February 22, 1955, I had made three major discoveries: a great trend in human affairs for freedom and dignity; a way to secure the participation of millions of people in building an assembled philosophy and common work relevant to needs of people everywhere; the future shape of a mature civilization and the means of establishing and dramatizing the great trends to draw it into that shape (a family shape) with institutions of peace replacing the international institution of war.

I am very sure that the Communist leaders now know that this great trend exists, that this inventor exists, and that a great program to build public order exists. The greatest danger now seems to be that by conference of disarmament proceedings the institution of war and the great weapons will be frozen on the people, for use at a later time. Actually there is no reason why the great weapons cannot be successively given up—no reason at all why programs of oppression cannot be lifted and the billions that are now wasted be used for the peoples needs. Only great action can dramatize this. Only great action by people can illustrate this to the Russian and Chinese people. This third world war is on all over the earth. The Hungarian people proved that no power complex can rule the people of the earth. The attempt may just as well be given over now as later. These matters are all pertinent to the consideration of the International Atomic Energy Agency.

I have heard a lot of talk about world government. Now, all those arrangements by which men of various philosophies, nationalities and positions can live together on the earth are world government. Even the international institution of war is a part of world government to which the people pay annual revenue in their lives, their property, and their bread. Even war, the allowed for state that exists when the peoples' leaders cannot solve their problems, is very, very bad world government.

Now the whole arrangements of world government are, in fact, a giant reactor, a very imperfect giant reactor, in which nations, individuals, and philosophies have a part. Nations themselves are good essential parts of this giant reactor and the assembly of the United Nations is a good philosophical base. The nations are the correct building blocks for world order. When the nations are of the same philosophy, like the United States and Canada, the present imperfect reactor works well even with the builtin international institution of war. Therefore, I will say repeatedly, that the true way to real peace is to establish those great trends to get all the nations free and truly independent. This is the peoples job. There is no short cut to peace. Peace must result from the work of millions of people.

I now need your friendship and help. The inventive thinker must always come to a point of fateful decision. There comes a time when his findings must be tested in the crucible of world opinion and action; a time when his inventive ideas form the battle lines of history. He can know no defeat and no victory. The standard can never be dropped from his hand until death itself releases him from the battle.

I may as well tell the people now what is really going on in the world and my place in this action. Discoveries of great significance can best be explained by the discoverer. If there have been people who have helped with inspiration and friendship those people have a right to share in such new fields as have been found. In my case the children have a right to know how this great work goes that they have inspired with their love and trust. We have come to a place where we can dimly see the outlines of a better world, where the people will be in charge—where the institutions of public order will replace the international institution of war—where the dictatorships of the proletariat will be replaced by governments responsive to the peoples' needs in all sectors of life—where the national cultures will be free and man will have some joy in the passage of this life—where each man makes his peace with God according to the dictates of his own heart and conscience—where the weapons of war are vanished from the earth and mans' attention is turned to making the earth a place for children to live.

These things are not the hopes of a dreamer. These things are the necessities of life and the trends toward these ideals are now clearly discernable in the actions of the people of the earth. You are here considering one action in the trend toward world order.

It is necessary that I establish my place in these matters because papers of great historical value are being lost; because too great a stain is being placed upon the physical resources of the inventor and his wife; because conflicts are occurring and lives are being lost unnecessarily by reason of the burial of inspiration; because Communist philosophers, trying to aline themselves with the great trends in human affairs, are claiming some credit for ideas concerning great trends expressed in the free world by a schoolteacher February 22, 1955, in the message to Moscow; because the people of the earth want to know how to carry on the third world war, the peaceful struggle of the people for dignity and life; because the people want to know what is actually taking place in the world.

I will mention two mechanisms that play havoc with the great reactor of world government. The first is the balance of power theory that is actually part of the mechanism of the international institution of war. Untold millions of people have paid their lives to prove this system of world order won't work. It always has and it always will end up in the explosion of the reactor. I think Von Brentano had that in mind when he insisted Germany should never become a world power which means the same thing as becoming a party to the balance of power concept. Japan is also reluctant to get back in the game.

The most devastating thing that can happen in this modern age, in this century, is an attempt to spread a philosophy by force, in combination with the designs of the national state. It is only the nature of the A-bomb and the power of the United States that stayed Stalin from the conquest of Europe and the fusing of the giant reactor explosion. Now the whole thing has gravitated into the balance of power field, with the booby traps left on the world scene by Stalin being armed with atomic warheads. The increasing range of the great weapons has given rulers and the people alike the grand delusion—the hallucination that the world would be controlled by one power. The message to Moscow was buried here. The great trend among the pepole of the earth for dignity and freedom that will utterly dominate the last half of this century was casually dismissed as wishful thinking. The Hungarian uprising that proved the futility of armor

and power in controlling people who mean to be free; that proved beyond doubt that no nation can control other nations permanently does not seem to have conveyed the lesson it should. The minds and hearts of the people are the citadels of freedom and dignity in this century, and the people will prevail for their numbers are legion and they are the base stock of every nation in this world. They will be led and they will know their leaders.

In this time of grave danger to the people it is only natural that they should call on their leaders they know and trust, like Dr. Schweitzer, to act as elders of the people, to build a council to act as trustees of a great foundation to do basic research and find new methods of conservation, so that the earth could be conserved and the attention of the world attracted to the needs of life. When you have this great leadership in action—when you have children and adults pledging some small amount for the general welfare of all; then you will have your millions of young people who will train themselves in science to do the worlds' work and be of service to their fellow men. They will take part in the third world war and these children who now pledge some small amount to keep other children safe from fear and obliteration will not let this work be torn asunder when they are grown. There you have the institutions of peace we need to replace the international institution of war. We must substitute one for the other. There, too, you have a work in which each free national culture could have an equal part for the great work of the Assembly of the nations could find there some appreciation, and in turn the training ground of the United Nations and the specialized agencies would furnish men of experience and wisdom for the great foundation. The world would be involved in work, to meet the grave issues which now confront us.

That, Gentlemen, is the shape of our future civilization; the shape of things to come. We will be working with the great trends now stirring the people of the earth.

To give some illustration to the work of the great council; to show in some degree the rights of the people in respect to the assembled philosophies of freemen I have written and distributed in part to the embassies and the news services a series of messages which combine simple inspiration for the peoples' work with recommendations such as the great council might give for the settlement of problems. These have been very well received, in fact, two nations through their information services have offered their moral support to this philosophical enterprise. I have not had the time to write three more messages on great happenings in the world, of serious importance to people everywhere, nor have I had the means to contact men of like mind in other parts of the world.

I would say that the main desire of the people right now everywhere on the earth is to have their leaders get down to work and the business of living; and stop a lot of this foolishness that is going on, which can only mean their death and the destruction of the complexes of industry that they have given their lives to acquire. For 37 years I have seen the Russian people sacrifice that great factories and industries might be had for a better livelihood. A war would utterly destroy this stockpile of the peoples' wealth—and make the earth a horrible place. I cannot believe that the Russian leaders can be too unwilling to let the Russian people survive, in a world geared for living and not for death. To the accomplishment of this great task there is no other necessity than getting at it.

A few years ago Einstein wrote to the President of the United States that it might be possible to secure the reaction of the atom for the service of or the destruction of the people. On February 22, 1955, I announced to the President and many others. through the means of the message to Moscow that it was now possible and greatly desirable to set up a human chain reaction, to involve the people of the earth in the building of institutions of public order, the enlargement of common work, and the assembling of men trusted by all, to conduct basic research and make recommendation on the great problems which increasingly confront the people of all lands—not by what nations could do in the first instance but by what the people could do, out of their own resources and hearts.

To the three principles mentioned earlier in this statement I now add a real discovery in human reaction. People will sign conditional pledges to build these institutions which represent a better life for people everywhere. I have talked with hundreds of people and I secured enough pledges over a year ago to know the chain reaction that could be set up when the proper time arrived. I judge that time is near.

We are now ready to consider the International Atomic Agency in relation to the institutions of public order which must now be built to replace the cold war, the international institution of war and some other defective contrivances that now form the sum of world government. There must be a gradual substitution. We must secure the actions of millions of people in the process. In general we must use the same principle that applies when a community is regenerated by the local church, by the local boys clubs, by civic effort and the replacement of slum housing. All the things the ennoble man have their proper place in building a world order and a world society where children can thrive and men have the passage of this life in peace. There is a place for every useful institution including the military in keeping public order. There is no real disunion between the peoples and nowhere on this earth do the people themselves want war or atomic pollution.

I have been thrilled by the growth and the competency of the Assembly of the United Nations. This will be an increasingly good base to build public order on. As the nations gain in freedom and in cooperation great leaders are rising in that field. The substitution of institutions of public order for the antique arrangements foisted on us by the centuries is taking place before our eyes. It must proceed with more speed because of the fixation—the power psychosis, the delusion that the increase in the range and ferocity of the weapons has produced in our minds. This substitution must be accompanied by a gradual decentralization of the power complexes. Perhaps disestablishment of them would be a better word. We must get back to earth and the people must be brought into the process, so that even children may have a useful part.

As problems are solved, world bureaucracy will grow less.

I think it may be useful to this committee to know that the philosophy of my Junior Volunteers might be properly outlined by adding the words "world community" to the 4–H pledge. Neighborhood Junior Volunteer Clubs, to build good communities, good countries and hte world community would be useful in many places in the world.

In considering this International Atomic Energy Agency we can assume that all those arrangements by which the nations get along are world government. We must consider whether the International Agency would fill a useful purpose. We can say that it is world government in respect to the use of certain materials and techniques to exploit for the people of the earth the discoveries in the field of the atom. I think it might better be described as atoms for work; work that meets the needs of the people. An increase in public order and cooperation can result from that useful work. It can only result in peace if we go much further and finish the job of gearing the world for life. It is one step in that process. I believe it is a step we should take. It is an increase in common work—a positively necessary step to build public order.

I believe wherever useful work can be accomplished in relation to all the people of the earth it is better to go ahead than to follow those arrangements which tend to throw two parts into competition. With useful work going on the arrangements tend to outline more clearly the garishness, the foolishness of the instruments to destroy people and their means of livelihood. People tend to put more faith in those arrangements which promote life.

Whether we have the great council or not we will have recommendation to meet the problems of atomic pollution that will arise. These are world problems. If there is already world cooperation in the field of atomic know-how and control of pollution these useful recommendations can more quickly be implemented in actions that will be far more effective because of this common body of experience and cooperation in the International Atomic Energy Agency.

I consider that the members of this committee who have listened to the testimony have far greater knowledge and competence to judge whether these arrangements can be used in the cold war than I have. We are in a great trend in human affairs. It is not probable that any matter, any small diversion in an Agency of this kind could have any effect on world affairs nor is it probable that any nation could gain any support of the nations for trying such a maneuver to interfere with those arrangements which mean an increase in the livelihood of all. I do not fear any loss in any philosophical conflict with any enterprise of oppression. The people want to live and let live. People are of one constitution everywhere. They want increasing freedom, increasing participation in government and they all seek the safety and security of their homes, their nation, and their world.

I owe it to you, to people everywhere, to those young people in my classes in North Carolina and Florida to bring to your attention the fact that the philosophical program to get rid of Stalinism did not start at the 20th Communist Congress. The young people who volunteered to be original Junior Volunteers in my school classes at Winter Haven, Fla., know that it started in the message to Moscow a full year before the 20th Communist Congress; that in fact, it started years before when this inventor watched a little boy he loved play around him and determined to secure a chain reaction of people to build a world where children would be safe and free. This is the matter you are engaged in. We have one common purpose: We may disagree on method but there will emerge from our efforts a mature civilization and the institutions of public order to replace the defective mechanisms that uselessly endanger our children's lives. I thank you for the great courtesy you have extended me in these deliberations of your committee.

PAUL D. THOMPSON, Sr.

P. S.—I wish to express my admiration for the great amount of good work that has been done by hundreds of people in many lands in the formation of the International Atomic Energy Agency.

P. D. T.

NATIONAL SOCIETY OF NEW ENGLAND WOMEN,
Washington, D. C., May 24, 1957.

Senator THEODORE F. GREEN,
Chairman, Senate Foreign Relations Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR GREEN: Enclosed is a marked copy of the resolutions adopted by the National Society of New England Women in annual congress assembled May 22, 1957.

We would like to have the "atoms-for-peace" resolution incorporated in the hearing record on this subject. We believe the peace of the world is best assured by the maintenance of the United States of the skills and know-how and materials of atomic energy and sharing, if desired, with selected countries in bilateral agreements as at present. If we are going to maintain the self-appointed task of world leadership with any success, we better lead in a positive fashion and in the national interest which will be also in the best interests of the people of the world.

This society urges a reduction in the budget, is opposed to more Federal aid to school construction and so-called and misnamed civil-rights legislation and would have the Senate maintain the present cloture rule in order to ensure the continuance of the last free parliamentary body in the world.

Sincerely,

MADALIN D. LEETCH
Mrs. W. D. Leetch,
Chairman of Legislation.

RESOLUTIONS ADOPTED BY THE NATIONAL SOCIETY OF NEW ENGLAND WOMEN 44TH ANNUAL CONGRESS, MAY 22, 1957, NEW OCEAN HOUSE, SWAMPSCOTT, MASS.

I. REDEDICATION

Whereas the 44th annual congress of the National Society of New England Women comes at a critical period unparalled in socialistic threats and communistic dangers to the Republic and to Christianity; and

Whereas the society's fundamental principles are more sorely needed today than ever before for constitutional government and individual freedom under God:

Resolved, That the National Society of New England Women rededicate itself to the emulation of the spirit and service of the forefathers and reconsecrate its best efforts to their crusading zeal for the perpetuation of their courage and faith.

II. REAFFIRMATION

See resolutions of 1951, 1952, 1953, 1954, 1955, 1956.

A. Dedications

1. Principles of the Declaration of Independence and the Constitution of the United States.
2. Sovereignty and integrity of the United States.
3. Appreciation of our heritage.

B. Preserve the Constitution

1. Expose world government and Atlantic union.
2. Restrict the United Nations, UNESCO, Red China.
3. Oppose the Status of Forces Treaty, the Genocide Convention, International Labor Organization, Organization for Trade Cooperation, General Agreement on Tariffs and Trade, reciprocal trade agreements, Covenant on Human Rights.
4. Support the Bricker amendment on the treatymaking power; the Reed-Dirksen (now Dirksen-Gwinn) amendment on the taxing power; the Byrd-Bridges amendment on expenditures and receipts; the Mundt-Coudert amendment to reform the electoral college; the Reed-Walter (now Gwinn) amendment to give States full power to originate amendments to the Constitution.

C. National defense and foreign policy

1. For superior airpower and adequate Army and Navy.
2. Sever diplomatic relations with the U. S. S. R.
3. Outlaw the Communist Party.
4. Curtail foreign spending.
5. Oppose drafting of women for military service.
6. Release of American soldiers held in Communist prisons.
7. Oppose pooling atomic information and resources.

D. Domestic security

1. Preservation of McCarran-Walter Immigration and Nationality Act: (*a*) Oppose influx of additional refugees.
2. Oppose Federal aid to education with inevitable control:
   (*a*) Urge a recognition of divine guidance in school programs.
   (*b*) Urge study of American history.
3. Support Sons of the American Revolution bill of grievances.
4. Urge oath of allegiance for candidates for public office.
5. Question membership of public officials in world-government promoting groups.
6. Oppose socialized medicine.
7. Caution on fluoridating water.
8. Support of right-to-work laws, forbidding compulsory unionism.
9. Resumption of its constitutional obligations by the Congress.
10. Gold redemption.
11. Economy in Government.

E. Endorse investigations

1. Tax-exempt foundations.
2. Congressional committees of investigation.

F. Endorse patriotic programs

1. Alexander Hamilton Bicentennial celebration.
2. Amendment to flag code requiring display of United States flag when U. N. flag is displayed.
3. Flag protection and flag on graves of war dead in Korea.
4. Urge General MacArthur's counsel on Japanese peace treaty.

III. CURRENT RESOLUTIONS

(I) Atoms for peace

Whereas a statute of the International Atomic Energy Agency has been submitted to the Senate for advice and consent to its ratification as a treaty; and

Whereas, the United States has already concluded more than 40 bilateral agreements with selected countries looking to cooperation in atomic research; and

Whereas the United States is expected to contribute its knowledge, materials and money to said international agency in which it is outvoted by nations, most of which are unable to contribute anything; and

Whereas by majority vote Red China can be admitted and there is nothing to prevent shipping uranium, etc., to the U. S. S. R., Red China or Soviet satellites:

Resolved, That the 44th Annual Congress of the National Society of New England Women urge the Senate of the United States to refuse to give its advice and consent to the ratification of the statute of the International Atomic Energy Agency as a treaty.

(II) United Nations Emergency Force

Whereas the control of the people over their Armed Forces is one of the vital elements of sovereignty; and

Whereas the lesson of the Korean police action is that the United States, while bearing 90 percent of the cost in lives and dollars, was denied victory by the political considerations of the United Nations;

Resolved, That the 44th Annual Congress of the National Society of New England Women urge the President of the United States not to transfer any of our United States Armed Forces to the United Nations or any international command under "treaty obligations" or otherwise.

(*III*) *United States aid to satellite governments*

Whereas the Union of Soviet Socialist Republics has drained the satellite countries of their resources; and

Whereas, it is proposed to give money and materials to the Governments of Poland, Hungary, and other satellites of the U. S. S. R. which enslave their people,

Resolved, That the 44th Annual Congress of the National Society of New England Women oppose financial and material aid to the satellite governments of the U. S. S. R. which make it possible for these oppressors of their people to stay in power.

(*IV*) *Reduce the $71.8 billion budget*

Whereas the budget of fiscal 1955 was $64.6 billion and has increased to nearly $72 billion, the larger part of the increase being in domestic civilian expenditures and not in the military,

Whereas to curb inflation, reduce taxes and prevent the triumph of socialism by spending ourselves into destruction:

Resolved, That the 44th Annual Congress of the National Society of New England Women support the bipartisan leaders of both Houses of Congress who are determined to cut this largest peacetime budget in history.

(*V*) *Proposed legislation on civil rights*

Whereas so-called civil-rights legislation would sacrifice liberties guaranteed to all citizens by the Bill of Rights of the Constitution of the United States and wipe out States rights for government by commission and police state methods of enforcement:

Resolved, That the 44th Annual Congress of the National Society of New England Women oppose all so-called civil-rights legislation now pending in the Congress of the United States;

(*VI*) *Senate cloture rule*

Whereas civil-rights agitators are working to change the Senate rule on the closing of debate in that body in order to make easier the passage of civil-rights legislation; and

Whereas seven bills before a subcommittee of the Senate Rules and Administration Committee propose (1) to change the presently required affirmative vote of two-thirds of the Senators duly chosen and sworn (2) to two-thirds of those present and voting, or (3) to a simple majority vote; and

Whereas traditionally the Senate is a curb upon action by the House and is now the only free parliamentary body left in the world:

Resolved, That the 44th Annual Congress of the National Society of New England Women urge the Rules Committee and the Senate of the United States not to stifle freedom of speech on the Senate floor, but to maintain its present rule requiring an affirmative vote of "two-thirds of Senators duly chosen and sworn" as this country's greatest protection against adoption of harmful legislation promoted by special interest groups for selfish ends.

(*VII*) *Federal aid to school construction*

Whereas professional educators have lobbied for Federal aid to schools for 30 years under any pretext and now are the chief advocates of Federal aid for school construction; and

Whereas the evidence is overwhelming that the States do not need or want more Federal aid to school construction:

Resolved, That the 44th Annual Congress of the National Society of New England Women reaffirm its opposition to more Federal aid to education in whatever guise and urge continued faith in the ability of crossroads America to best known and meet local school needs, without the risk of control, inevitable with so-called Federal aid.

(VIII) Socialism in the churches

Whereas socialism is fruit of the same tree as communism; and

Whereas church social action programs in the name of "peace" and "brotherhood" make socialism respectable:

Resolved, That the 44th Annual Congress of the National Society of New England Women recognize the fallacy and danger of promoting measures which can lead only to world socialism and the autocratic state and protest using our churches and our money for such political purposes.

(IX) Courtesy resolution

Mrs. Ernest H. Perkins,
Mrs. Frank Parcells,
Mrs. Floyd Woolsey,
Mrs. Gerald O. Inman,
Mrs. Wm. D. Leetch, *Chairman,*
Resolutions Committee.

National Society, Daughters of the American Revolution,
Washington 6, D. C., May 20, 1957.

Senator Theodore Francis Green,
Chairman, Senate Foreign Relations Committee,
United States Capitol, Washington, D. C.

Dear Senator Green: I wish to convey to you and the members of the Senate Foreign Relations Committee and the Senate members of the Joint Atomic Energy Committee, the official stand of the National Society, Daughters of the American Revolution, regarding the ratification by the Senate of the United States of a statute of the International Atomic Energy Agency as a treaty. I would request that this letter be made a part of the official record covering the proceedings of the committee regarding this subject.

The 66th Continental Congress, National Society, Daughters of the American Revolution, April 15–19, 1957, adopted the following resolution:

INTERNATIONAL ATOMIC ENERGY AGENCY

Whereas the world's best hope for peace rests in the superior knowledge of and possession by the United States of America of atomic energy materials and resources; and

Whereas the Senate Foreign Relations Committee will soon consider the ratification of a statute of the International Atomic Energy Agency as a treaty, which, if ratified, would place atomic-energy knowledge and resources of the United States under the international control of friends and foes alike; and

Whereas a staff study of the 84th Congress listed 56 pages of Soviet political treaties and violations which demonstrate that so-called safeguards written into treaties are impossible to enforce:

Resolved, That the National Society, Daughters of the American Revolution, urge the Senate Foreign Relations Committee to refuse to recommend the ratification of this statute as a treaty; and

Resolved, That if the proposed treaty is presented to the Senate, the National Society, Daughters of the American Revolution, urge that body to refuse to give its advice and consent to such ratification.

It is interesting to note that in a book published in 1948, entitled, "Peace Or Anarchy," by Cord Meyer, Jr., past president of the United World Federalists, the author, on page 157, in developing the thought that the United Nations must have an assured and adequate source of funds, points out that a strengthened United Nations, through its control of atomic energy, would receive a substantial income from the sale of atomic power. Page 170, "There is secondly the necessity of being prepared to deal with national revolt against the United Nations. For this purpose the United Nations police must be armed with those modern weapons which the national governments would be prohibited from owning."

In the book, World Government via the United Nations, by Clark M. Eichelberger, director, American Association for the United Nations, we find the following:

"* * * However, I believe that world government is coming through new forms—many of them administrative forms, such as the agency recommended by the Atomic Energy Commission * * * These developments will take place within the United Nations. I believe that the United Nations is the beginning of world government and law * * *"

On December 8, 1953, President Eisenhower presented to the United Nations General Assembly, his atoms for peace plan and proposed, "The Governments principally involved * * * to begin now and continue to make joint contributions from their stockpiles of normal uranium and fissionable material to an International Atomic Energy Agency. We would expect that such an agency would be set up under the aegis of the United Nations."

Such an agency could lead to a supreme world power which would mean world government. In view of the above quotations from the published writings of Mr. Cord Meyer and Mr. Clark Eichelberger, the suggestions of Mr. Eisenhower given on December 8, 1957, become especially interesting.

One result of our participation in such agency would be to circumvent the constitutional powers of Congress by using treaty law as authority for giving away half a billion dollars worth of enriched Uranium 235. Such fissionable material is readily convertible into weapons materials.

While the atomic materials we are committed to contribute to the pool are intended for peaceful uses, it is now established that there is no clear dividing line between information or use of materials for peaceful uses and for the making of weapons. For example, a scientist associated with the Brookhaven National Laboratory stated before a congressional committee on March 8, 1956: "You cannot distinguish military from peacetime considerations when it is a matter of high-powered reactor producing plutonium." Dr. J. Robert Oppenheimer has said: "The manufacture of atomic energy for peace, in any plants that I have heard discussed, would make material latently, which could be used for war."

Perhaps the most disturbing factor in the present situation is that any nation which belongs to the United Nations or a specialized agency thereof, can qualify as a member of the International Atomic Energy Agency, provided it is approved for membership by a majority of the governing bodies of the agency, the General Conference and the Governing Board. Thus, Red China needs only a majority vote of these two groups to be admitted to membership, and, of course, our atomic materials can be sent to the Soviet Union itself, and to the captive nations—Czechoslovakia, Yugoslavia, Rumania and Poland. Moreover, the United States is obligated under the treaty, if so directed, to deliver atomic materials directly to these countries.

Ratification of a Statute of the International Atomic Energy Agency as a treaty would be perhaps the gravest step the United States has taken away from sovereignty and self-preservation, along the road of internationalism and world government.

Sincerely,

MARY BARCLAY ERB
Mrs. Ray L. Erb.

STATEMENT OF MRS. AGNES WATERS, ONLY WOMAN CANDIDATE FOR PRESIDENT, UNITED STATES OF AMERICA, AGAINST EXECUTIVE I, 85TH CONGRESS, 1ST SESSION, MAY 15, 1957

Mr. Chairman, members of the committee, I appear here against the Senate ratification of the Statute of the International Atomic Energy Agency, and I ask that it be not ratified by the United States Senate on the grounds that it is a threat to the security of the people of the United States of America.

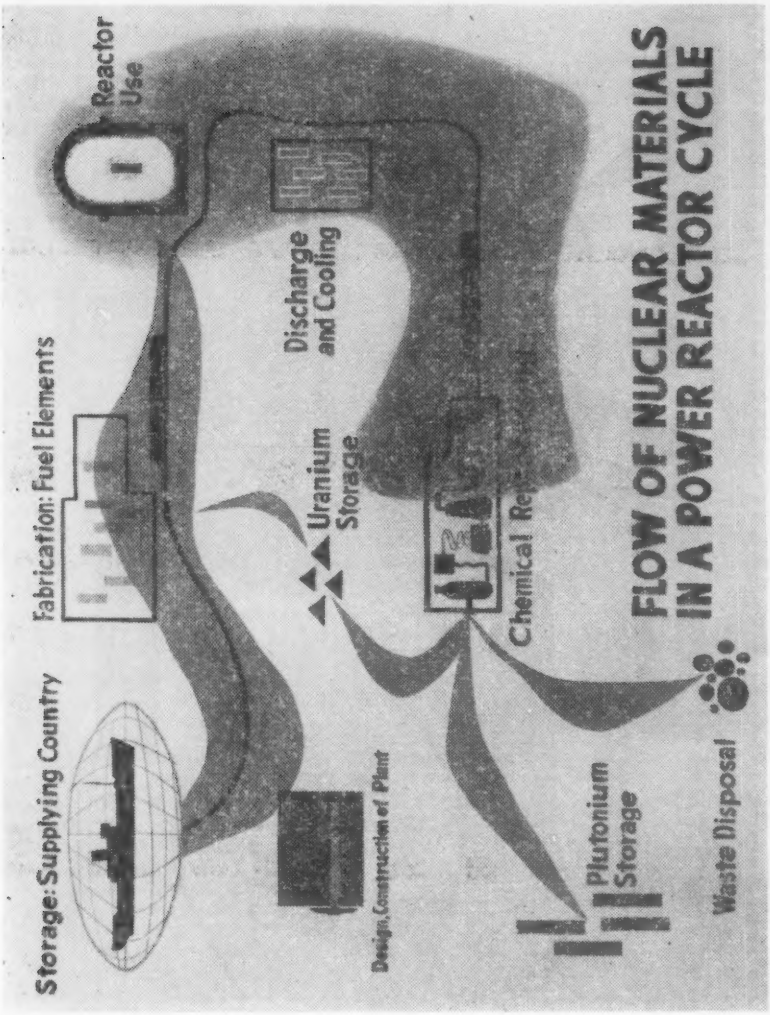
I also oppose ratification on the grounds that the control of and use of our American property by this statute passes to foreign hands—which you have no legal right to give—and these foreign hands are very likely to become enemy hands holding and controlling vital American secrets and materials such as this statute mentions; namely, "Special fissionable material," which means plutonium 239, uranium 233, etc., all of which are pertinent to the manufacture of our atomic bombs.

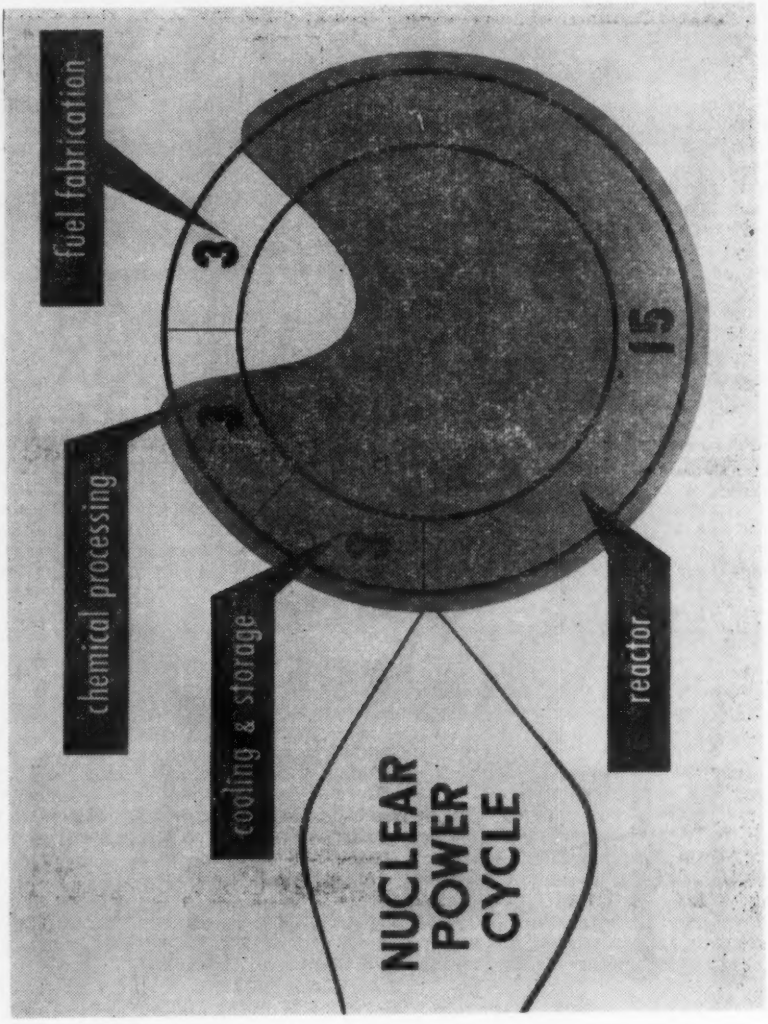
I also object to this arrangement or statute, on the grounds that it is to be under the control of the "Red" "United Nations" with 6 Russian votes to 1 vote in the United States delegation, and whose U. N. Security Council is staffed by Soviets. With the Soviet, Arkady A. Sobeloff, as Minister of War and Information at the U. N. Headquarters in New York.

I also wish to call to the attention of the Senate the fact that I objected to the Senate ratification of the appointment by President Truman, of Lewis L. Strauss to the Atomic Energy Commission many years ago, and I understand that he is the principle witness in support of ratification of this statute, and I wish to reaffirm the objections I originally made to his appointment to the Commission.

I ask that this statute or treaty be killed.

APPENDIX


Storage: Supplying Country
Fabrication: Fuel Elements
Reactor Use
Discharge and Cooling
Uranium Storage
Design, Construction of Plant
Chemical Re
Plutonium Storage
Waste Disposal
FLOW OF NUCLEAR MATERIALS IN A POWER REACTOR CYCLE


fuel fabrication
3
chemical processing
3
cooling & storage
5
reactor
15
NUCLEAR
POWER
CYCLE

INDEX

Page

Article I—Establishment of the Agency 21, 33, 79, 128
Article II—Objectives 2, 21, 33, 128
Article II—Functions 21, 33, 59, 63, 128
Article IV—Membership 22, 34, 52, 129, 150
Article V—General Conference 23, 35, 130, 141
Article VI—Board of Governors 11, 12, 24, 35, 42, 43, 54, 58, 130, 141
Article VII—Staff 25, 36, 58, 133, 151
Article VIII—Exchange of information 25, 36, 55, 102, 103, 133, 180, 181, 198, 200
Article IX—Supplying of materials 26, 36, 50, 55, 56, 92, 133, 140, 149, 153–8
Article X—Services, equipment, and facilities 27, 36, 134, 158
Article XI—Agency projects 27, 36, 135
Article XII—Agency safeguards 28, 37, 43, 51, 56, 58, 60, 71, 72, 80, 87, 93, 98, 108, 118, 121, 135, 197
Article XIII—Reimbursement of members 29, 38, 48, 57, 64, 103, 124, 159, 169
Article XIV—Finance 29, 38, 44, 57, 136
Article XV—Privileges and immunities 30, 39, 64, 137, 161, 162
Article XVI—Relationship with other organizations 30, 39, 137, 144
Article XVII—Settlement of disputes 30, 39, 137
Article XVIII—Amendments and withdrawals 31, 39, 67, 137
Article XIX—Suspension of privileges 31, 39, 137
Article XX—Definitions 31, 40, 44, 137
Article XXI—Signature, acceptance and entry into force 32, 40, 137
Article XXII—Registration with the United Nations 32, 40, 137
Article XXIII—Authentic texts and certified copies 32, 40, 137
"Atomic anarchy" 88, 174
Atomic Energy Act of 1954 ..... 6, 9, 10, 62, 64, 65, 78, 85, 146, 165, 168
Atomic Energy Commission 105, 178, 186
Bilateral agreements 49, 50, 61, 63, 65, 66, 69, 70, 71, 85, 86, 102, 108, 110, 115, 117, 160, 165, 170, 175, 182, 191
Board of Governors. (*See* art. VI.)
Communist satellite countries (*see also* Red China) 8, 108, 148, 170
Control. (*See* Inspection.)
Cost of agency 48, 65
Electrical energy, developing from atomic energy 86, 106
Equipment. (*See* art. X.)
Enrichment, percentage of 89, 109, 111, 118
Euratom 62, 106
Finance. (*See* art. XIV.)
Fissionable materials:
  Adequacy of (*see also* Stockpiles) 13, 59, 84, 106, 117
  Offers of to agency 48, 52, 53, 68, 92, 111, 179, 189, 201
  Pilferage or seizure, danger of (*see also* art. XII) 89
  Supplying of (*see also* art. IX) 26, 36, 50, 55, 56, 92, 133, 140, 149, 153–158
  Transfer of 91, 93, 122, 143
Fuel elements 90, 94, 96
General conference. (*See* art. V.)
Headquarters, location of 7, 45
Information, exchange of. (*See* art. VIII.)
Inspection and control (*see also* art. XII) 16, 67, 68, 69, 77, 101, 103, 117, 120, 123, 171, 197, 202
Insurance 115
Iron Curtain countries. (*See* Communist satellite countries.)
Membership. (*See* art. IV.)

Page
Military use, risk of conversion for 14, 16, 61, 79, 89, 107, 110, 114, 121, 163, 169, 175, 176, 180, 184
Negotiation of the statute 4, 15, 41, 81, 128, 168
Power reactor cycle 93, 97
Preparation Commission 32, 40, 44, 137
Privileges and immunities. (*See* art. XV.)
Radioactive isotopes 114, 170, 180, 190
Radioactive waste 84, 105, 123, 190
Ratification 14, 47, 52, 53, 65, 106, 139, 149, 162, 171, 201
Reactors 70, 79, 90, 93, 96, 104, 112, 119, 170, 179, 190
Red China 44, 53, 54, 67, 121, 129, 151, 169, 182
Reimbursement. (*See* art. XIII.)
Research development 71, 183
Reservations and understandings (*see also* Ratification) 18, 47, 65, 104, 179
Safeguards. (*See* art. XII.)
Sanctions 51, 59, 60, 71, 79, 90, 121, 155
Scientists 77, 79, 197
Self-executing 48, 78, 122, 145
Staff. (*See* art. VII.)
Stockpiles (*see also* Fissionable materials, adequacy of) 15, 62, 80, 107, 189
Strontium 90 ..... 187, 193
"Terms," use of in article IX 50, 71, 92, 153
Training of scientists, inspectors and staff 77, 86
United Nations. (*See* art. XVI.) 51, 54, 60, 71, 130, 141, 144, 152, 169
U. S. S. R 59, 61, 139, 184, 188, 190, 193, 199, 200
Waste. (*See* Radioactive waste.)